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HARDY FERNS

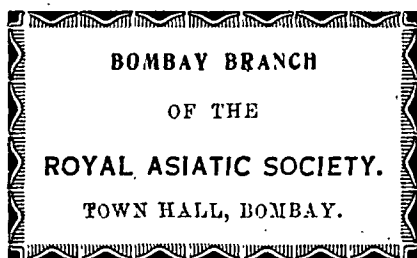
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B. B. R. A. S.



TO
THOMAS MOORE, Esq., F.L.S.,
(MY GUIDE INTO FERN-LAND,)
THESE PAGES
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INTRODUCTORY.

THE Book of Nature is the Book of God. It translates itself for every man into his own language, so that no error caused by man's defective wisdom can creep in.

The keenest inquirer, the closest investigator, can discover no flaw in it. The highest magnifying power when applied to the minutest atom in the world of Nature only discovers greater degrees of perfection—a world of beauty, lying hidden within a world of beauty.

The Book of Nature is written in language that adapts itself to every age—the little child can read

it, and, as he reads, it will unfold itself more and more ; luring the scholar on, in its own sweet way, to greater researches ; and repaying him a thousand-fold, in happiness, for any labour or time spent in its study.

One of Nature's simplest pages—I had almost said one of its prettiest—is that which I have made the subject of this small volume.

The common hedge-row, the old wall, the rock by the sea-coast, and the wild moor, provide for us the little kingdom of Ferns, whose peculiar habits of life and growth form a pleasant study for our hours of recreation.

We should begin our collection from those which grow near our own homes, bringing first one root, then another, finding out to what family they belong, what soil suits them, and their distinctive characters and habits.

The cottage garden may always have room for its Fernery ; a few plants by the old well, by the

wicket-gate, will supply subjects for thought and study; helping to turn the child's heart to the love of the pure and beautiful instead of the vile and the debasing.

We may all help each other in studies of this kind; giving or lending books, dividing a fortunate discovery with less successful Fern-hunters; in a hundred ways we may one and all help in diffusing the pure and happy thoughts which the study and knowledge of natural objects give; and in making others happy, we shall most assuredly find the easiest way of becoming happy ourselves.

In the following pages it will be found that I have mentioned every distinct species of British Fern, with many of their varieties. I have described the localities in which I found them, the conditions requisite for their well being, and the nature of the soil they like. I have given simple yet full directions for their planting and for the construction of the Fernery, with my own

practical experience as a successful cultivator of Ferns for the last ten years.

I have used throughout the book the most popular botanical name for each of the Ferns, remembering how the variety of names used by authors puzzled me in the early days when I first began to make the acquaintance of my favourites.

One hot summer's day stands out in my memory, clear and defined. I was in a hill country—and I saw written, for the first time, in a book, as one of the Ferns of the locality, the *Pteris Aquilina*. How I hunted up and down the steep mountain-side for some strange-looking Fern! till meeting some friends, I asked, "Do you know the *Pteris Aquilina*?" "Yes," said they, laughing, "and so do you!" and they pointed to the Bracken, or common Brakes, which grows in the greatest profusion nearly everywhere, and yet from the creeping nature of its roots—hiding themselves far down in the soil, and spreading out in number—

less ramifications—this Fern is so difficult to transplant, that I have never yet seen it in cultivation : and, therefore, it alone will find no prominent place in these pages, which treat of the Hardy Ferns I have collected and cultivated.

I should recommend all who wish not only to collect Ferns, but also to study their nature, to provide themselves with a “Codrington Lens ;” it is a magnifying glass of great power and small compass, suitable for the dissecting of the minute spore cases which line the back of the fronds of the Ferns, and by which the learner is able to classify the various plants he may meet with.

The price of a “Codrington Lens” is about sixteen shillings, but I must own that I made a very large collection of Ferns, and learned their habits of life, their names, and classification without the help of any glass at all. I did it by a very simple process, recommended to me by the late Mr. Bree, whose researches in the world

of nature are so widely known. This process will be found described in an early chapter of this work, together with an invention of my own, equally simple, for the easy packing and transmission of Ferns.

With these few words I send forth my little book to the public, hoping it may induce others to explore, as successfully as I have done, the pleasant haunts of my favourites, the natives of beautiful Fern-land.

HARDY FERNS.

CHAPTER I.

As odours, press'd in summer hours
From summer's bloom, remain
To soothe and comfort, till the flowers
Of spring revive again ;

So Memory's magic wand restores
Gladness too bright to last ;
And in a flood of music pours
Sweet echoes of the past.

MANY years have passed away since my intense love for the vegetable world centred itself in "Hardy Ferns ;" I loved them, not because they were the fashion, but because they pleased me—pleased me in a manner that even wild flowers failed to do. I think one reason for this was that I felt the study

of Ferns was within my capacity. I could, as it were, measure the length and breadth of what was necessary for the knowledge required—no hard books, no very unpronounceable names; but what was far better, I saw in the distance long walks in pleasant places with cherished friends, a little speculation, a little argument, and a great deal of innocent enjoyment. Then the habits of the Ferns pleased me; the tall graceful Lady Fern hiding herself away in some sequestered nook—the hardier Filix-mas shooting up tall and straight, proud of its strength and size—the pleasure-loving little Septentrionale basking in the very eye of the sun—the shy Ruta-muraria scorning any home or companions but those of its own seeking, and quickly pining away in a land of strangers—the Scolopendriums revelling in their rich variety of form, each with a separate charm, yet together forming one of Nature's loveliest groups.

So I brought to the study of Ferns a lover's heart, and like other lovers I have had many ups and downs in following the fair objects of

my choice, and my huge Fern-book stands like a gallery of departed mistresses, each labelled with the fond name of a wild imagination; a diminutive frond of *Lastrea dilatata* appears boldly as "*Dryopteris!*" unmitigated *Filix-mas* does duty as "*Lastrea cristata!*" *Oreopteris* alone is right. Oh! what happy days does my old Fern-book recall!—what pleasant wanderings by banks and braes, by rock and river! Each Fern has its own separate existence in my memory. I see once more the little brawling Gwendryth, from whose banks I drew my *Dilatata* to flaunt for a time under its fictitious character; I hear the hearty welcome of the Welsh tailor, whose weather-beaten cottage stood beneath a weeping birch-tree by its side, where the poor fellow earned a scanty living for his consumptive wife and many children. From that first visit my mind travels to the last; the gentle voice is hushed, the poor bed of straw empty, and lying in an inner room on a flower-bestrewed coffin is the

patient sufferer at rest for ever. The Welsh poor are like none other; I have wandered amongst many people, been greeted as a friend by many, but never so gratefully, so gracefully as in the lowly cottages of Wales.

My first *Oreopteris* was found in a wild mountain spot a few miles from Chepstow. I went in search of it with a frond from a true plant in my hand. I remember the search as if it were but yesterday —how gallantly I plunged into the Devil's Punch-bowl, where, I was told, the *Oreopteris* drank the dews of heaven; how diligently I crushed every Fern I found there, till the sweet lemon scent that escaped told me my search was over, and that the frond in my hand, with its tidy rows of spore-cases, guarding the leaflets like rows of little soldiers, and its bleached-looking stalk, was my favourite *Oreopteris*. There are many common Ferns to be found about Chepstow and the beautiful banks of the Wye. I found the *Ceterach*, *Asplenium trichomanes*, divided forms of Hart's-tongue, &c.; and I also found Tintern Abbey, that most perfect

of all English ruins, and Raglan Castle, and I would say, Let no man think he has seen a sunset till he has seen one from the tower of Raglan. Yet it is a cockney sort of sunset ! for it is pointed out to you with the utmost precision, every shade of colour expatiated upon, till you turn away with an angry feeling as if some one had spoken of your own beauty in a rude unfeeling manner ; yet for all that one looks in a glass again, and I hope to see a sunset from Raglan tower once more.

From Chepstow I passed on to South Wales, where for several months I carried on my somewhat wild researches much as a mariner without a compass might do ; but my “ignorance (most certainly) was bliss,” and by the magic wand of imagination each day’s discoveries were transformed into gems of rarest value. I have never altered these fictitious names in my book, they bring me such happy memories of bygone days ; they are a journal in which nothing but scenes of beauty and pleasure are recorded. This frond was gathered at Dynevor Castle, put aside for the minute while

I hammered away at the rocks ; for I carried on a little desultory wild geology as well as botany, and Dynevor is a famous place for both. As I look at this *Asplenium ruta-muraria* I am once more scrambling down the old broken mud wall, strongly savouring of pigs, where it had made its home, far down to some famous sand-burrows from which I gaze on the treacherous Cefn Sidan stretching far out into the blue waters towards Tenby. As I watch I see two vessels bearing down on each other ; they pass and seem to pause ; a boat is lowered from both, and then I see the smaller of the two vessels slowly sink down lower and lower till only her mast is above the sea. I hasten home, and after a while of suspense hear the good news that no life was lost.

Another Fern takes me to a Welsh wedding, where I had been “ bidden ” by a printed invitation in these words:—“ As we intend to enter the matrimonial state on Thursday, the 9th day of June next, we are encouraged by our friends to make a BIDDING on the occasion, the same day, at

the young woman's father's house, in the village of L——, at which time and place the favour of your agreeable company is humbly solicited, and whatever donation you may be pleased to confer on us then will be thankfully received, warmly acknowledged, and cheerfully repaid whenever called for on a similar occasion, by your obedient servants David Jones, shoemaker, and Hester Morris." What a wedding it seemed to be, as I gazed for a few minutes on the soberly merry scene; what an incongruous heap of presents the bidding had collected—chairs, tables, a clock, cups, jugs, pots and pans! What a Babel of voices! and what dancing! nothing rude or boisterous but the fiddle, which gave spasmodic attempts to be jocund only ending in a growl, to which one young dancer after another trod a sedate and solemn measure, while the elders exclaimed, "Look! see what a grand dance! Yes, yes, it is fine." Thinking the "Sassenëg" might be a hinderer of mirth, I departed.

This frond of *Asplenium marinum*, measuring $1\frac{1}{2}$ foot, I consider the gem of my old book; it

bears a look of learning about it; it reminds me that at this time I invested half a guinea (its then price) in "Moore's Popular History of British Ferns," and that it has been quite worth its cost to me. In the local distribution of *Asplenium marinum* I found mentioned, "Cliffs between Tenby and Saunder's Foot." I tremble when I think of those cliffs. Armed with a bamboo 15 feet long, with a knife tied on the end, I sallied forth one day in search. By using the utmost dexterity the bamboo was carried safely over the ferry; but the land passage was not so easily accomplished, the retreating tide leaving, not sand or shingle, but huge boulders of slimy stones and rock, covered with various Algæ, each more inimical to walking than the last, while little pools of water with tiny crabs in them, seemed lying in wait at every step. I measured the bamboo with my eye, and grasped it fairly in the middle, but now its head would entangle itself in the seaweed ahead, its poor body starting up like an overstrained bow, threatening to precipitate me backwards; and now

it would bury itself in the sand, from which, at an unwary jerk, it flew madly in the air, dancing the knife about in dangerous fashion.

Yet, how beautiful was that coast! Cliff after cliff broken into every fantastic form, with masses of trailing plants adorning them, and here and there, high and dry, a bit of sand from which poor dried-up grass issued, sent, as it seemed, to bear the tender weight of pink and white *Convolvulus*. The white ripples of the retreating tide returned for a moment to gaze upon the intruders, while far overhead a solitary bird went sailing into the blue distance, sending forth a plaintive cry to its lost fellows. And in some little cave amidst this unbroken solitude I was to see for the first time my friend *Asplenium marinum*, and at last I found it! A damp dripping cave it was, with no bit of dry rock to promise a safe perch if the waves caught you; steep cliffs around with no escape; but hanging here and there above my reach, even with the bamboo, I saw the long shining sprays of the beautiful *Marinum*.

But how to get at it ?

Mounting as high as I dared on a tidy ledge till hat and chin peered over the projecting rock, steadying myself with one hand, with the other I hoisted up the bamboo, and began a sort of sky fishing, making desperate jerks to reach my object, when suddenly there boomed on my ear like a cannon, "Bless my soul, madam, you'll be killed ! Hold on till I come." But who was "I" ? Just rounding the cliff came a little boat, and in it a gentleman, a lady, and a sailor. Stout and ruddy against the blue sky showed they as I sighted them over the point. The "situation" was not exactly happy, but with a firm hold I was master of it. The party landed. The gentleman bowed, and asked leave to take my place ; but even then we were but a few inches nearer the Fern. Then the sailor came, and, like Cæsar, saw and conquered. "Yes, yes," he said. "Sure she's high, but I'll get her. May I stand on your shoulder, sir?" In a moment the boatman was on the stranger's arm, clinging to a scrap of rock. A

spring, and he was safe on a ledge, securing root after root of the desired treasure; and thus I became possessed of the first living specimen for a Fernery that has been my pleasure for ten years.

The little party in the sea-cave gathered round the Fern, feeling we could hardly admire it enough, with its black shining *stipes*, its simply pinnate frond—not stiff, as in cultivated specimens, but with a waving curve of dark bright green on which the light glinted—its fructification (it was autumn) rich, full, and brown, traversing from either side of the mid-vein of the pinnule to the serrated outer edge.

After due examination, the sailor took a “cordial” from our picnic flask, jumped into his boat, and the party, so strangely brought together in pleasant fellowship in that lonely spot, parted for ever. I planted the roots in pots half full of drainage, and I have them now as green and beautiful as then. In looking at them I often wonder whether there still exists in another English home one of the trophies of that day, of which

a gentleman says in a jolly voice, "That, my love, is the Fern I found the day I saved the lady's life in the Welsh cave;" and whether the rejoinder remains, "My dear, you were very foolish, and it was the sailor!"

CHAPTER II.

Scotland !—dear to him was Scotland,
In her sons and in her daughters,
In her Highlands, Lowlands, Islands,
Regal woods, and rushing waters ;
In the glory of her story,
When her tartans fired the field,—
Scotland ! oft betray'd—beleaguer'd—
Scotland ! never known to yield !—MOIR.

RETURNING to one of the midland counties with my book of dried impostors, I showed it one day to the late Mr. Bree (after whom the *Lastrea Fœnisecii* is called “Bree’s Fern”), bewailing to him the difficulty I had in naming truly the specimens I found, with no other help than that given by books.

Mr. Bree did not say, as he might have done, “It’s your own ignorance,” but in his own kind way he gave me a bit of advice that has helped me

more in my searches than anything I have read in books. He said, "Yes, it is always a difficulty to beginners; but the best way is to make yourself thoroughly acquainted with the look of the true Fern before you hunt for it, and in difficult varieties to try and get a frond, so that you may match it;" and, in order to help me further, Mr. Bree sent me a number of fronds, such as *Lastrea Fœnisecii*, *L. cristata*, *L. rigida* (found by Mr. Bree at Ingleborough, in Yorkshire), *Polypodium phegopteris*, *P. calcareum*, &c., to take about with me till I had either found their fellows or learned the true notes of their speciality. Of *Polystichum lonchitis* there was only one true plant in my immediate neighbourhood, and this had but three fronds, so I had to make it a morning call and learn its features as best I could.

Furnished with my book of "patterns," a black tourist's bag, two trowels, one flat like a bricklayer's, to pick Ferns out of rock or wall, I set off on a Scotch tour. I was provided with all the requisite means of collecting the Ferns; but how

was I to carry them about for two or three months in any quantities? I hit upon the following plan, which answers so completely, that I think I may say I have hardly lost one specimen since I adopted it, and I have brought Ferns from the very heart of the Pyrenees.

I provided myself with a large tin box with padlock and key, and three or four yards of common brown calico. As I found the Ferns I wrapped them up in bits of calico with a little earth and drainage at the bottom, sewing them tight, like little mummies, leaving only the fronds and stalks uncovered. In this way the tin box held large quantities. At the inns I simply unlocked the box, and once in every few days sprinkled them with water. I have carried them in this way for two or three months. They are not half the trouble of a new bonnet, for they come out at the end of the journey as fresh as when they started, which I grieve to say a bonnet never does.

Our first halting place was Edinburgh, and

early morning found me wending my way through old dingy streets, past houses of a dozen stories high, to Arthur's Seat, where in some retired nook I was told I might find *Asplenium septentrionale*. Ever and anon, as I walked, I turned to gaze. Below me lay the fair Palace of Holyrood, with its ruined graceful Chapel and its thousand associations. There Rizzio was murdered. There the beautiful but hapless Queen Mary sinned and repented. There the Pretender slept—Pretender indeed ! Instinctively I hummed the old Jacobite toast, ending—

But which Pretender is, and which the King,
Why, bless us all, that's quite another thing !

Away to the left, in the Old Town, is the Tolbooth, and a little further the Canongate, places that seem to come to you as scenes of your childhood, so familiar have the wondrous pages of Sir Walter Scott made them ; and as one toils up the steep ascent to Arthur's Seat a crowd of old memories rush in upon the mind, and the

eyes become a little blind to the direct object of the walk. What wonder, then, if you return, as I did, fernless, but with an appetite as keen as a hunter's from the pure air sweeping to you over the white-capped waters of the Frith of Forth !

My first personal acquaintance with *Dryopteris* (I must be allowed to use their Christian names !), in its wild state, was made between Hawthornden and Roslin, in a lovely walk raised a little above the flowing rippling Esk. In the woods, on either side, it grows in great luxuriance, and many a root found its way into the black bag. It gave rise to a great argument : one of the party declared it to be *Calcareum*. In vain I said *Calcareum* had not as yet been found in Scotland ; in vain I pointed out the true characters of *Dryopteris*, the pale green of the young fronds with their three little rolled-up balls, the flat compact forms of the larger fronds, descanting meanwhile on the blue green of *Calcareum* with its larger more straggling fronds, its narrower pinnæ, its sharper serrated pinnules. It would not do, and, doubtless, to

this day, the same Fern bears two distinct names in our respective Ferneries.

Dryopteris is a little difficult to pack, from its creeping roots ; but I was unmerciful, cramming a whole heap of delicate little fronds and roots into one mummy case, and of all my transplanted Ferns, *Dryopteris* stands second in its free growth and increasing habit ; but it should be planted as a border to a Fernery amongst the lowest stones, and never in the upper stages, as it soon overgrows any Fern near it. It looks well in contrast with *Asplenium trichomanes*. I found *Dryopteris* very plentiful all over Scotland ; but in Fern-hunting I make a rule always to take the first specimens I find. It is easy to change them for finer plants afterwards, but Ferns are usually very local, and an opportunity neglected is oftentimes an opportunity gone for ever.

My next acquaintance with *Dryopteris* took place at Callander, where a tourist is first allowed the privilege of saying he is in the Highlands. Callander is a famous place for a few days' halt,

for there are good fish in the river, and the country around abounds in wild flowers and Ferns. It is a pleasant little village of scattered white houses, backed by fir-clothed rocks, while in the front and to the right are undulating hills leading up to the foot of Ben-ledi, or the "Mountain of God," where shadows are always dwelling. I was told I should find *P. lonchitis* on Ben-ledi, but I searched there in vain.

Within a walk of Callander are the Falls of Brachlinn, to which we were guided by a shoeless intelligent child of the mountains, carrying our basket of provisions, which we ate on some scattered rocks within sight and sound of the merry leaping waters, which fell at our feet with a rushing mighty music. It was just the home for *Hymenophyllum tunbridgense*, and little Maggie and I jumped from boulder to boulder in fruitless search; but roving amongst the *débris* of leaves and moss I found a whole carpet of *Polypodium phegopteris* and *dryopteris*.

I have noticed this peculiarity in *Phegopteris*—

it chooses shade for its roots, but the fronds make their way through tangle and briar up to the light and sunshine; and to do this the wiry stalk is often half a yard in length, so that sometimes it is no easy matter to get at the roots, and I chose rather the plants where the fronds were less fine and the stipes shorter. These, usually, were near at hand on drier soil.

Phegopteris is not so happy-looking in cultivation as *Dryopteris*, and it is even more troublesome to pack. I took up a large surface of roots, sewed them in a flat package, and put them at the bottom of the box with the other Ferns upon them. In this way the fronds were injured, but the roots themselves were unharmed. About Callander I found my first *Cystopteris fragilis*—that loveliest of all our English Ferns—so easy of cultivation, so delicately varied in form, and yet so tenacious of life that the smallest division of the bulbous-looking roots will grow. I do not think sufficient attention has yet been given to this Fern.

I have in my collection many true and constant

varieties, for which I can find no name in books. One of these, and the most beautiful in its diminutive grace, is hardly three inches in length. The pinnæ are nearly opposite each other, and are in the lower pinnules thrice-pinnate, the whole of the divisions are acute, and this separates it from *C. alpina*, as also from *dentata*. I have other varieties equally distinct, and coming up year after year true to their original form, but I did not find these at Callander, though all the old broken walls abounded in the usual form of *C. fragilis*, and I brought away dozens of plants in their compact mummy cases.

My first Scotch "Sabbath" was passed within the shadow of Ben-ledi. How different it was from an English Sunday, and still more from an Italian *jour de fête*. A deep solemnity seemed fallen on the world, the very mountains looked a shade more grim, and the wild flowers as if they blushed at looking so pretty, and growing on this sober day. I went to the "Established Church," from which the "Free Kirk" has fallen away,

just as the "Southerners" fall from the "North," which in like manner fell from its allegiance to England. The humble building was filled with a sober severe-looking congregation. The minister and Kirk session were in the vestry electing three "elders," of which notice was given to the congregation, and if any had objections to raise, they were cited to appear and state them. Presently the minister came and gave out a psalm, which we all sang sitting down, then he made a little quiet prayer, all the congregation standing, then we sang again, after which there was a sermon with nothing particular in it, then another psalm, then the elders were addressed and vowed obedience to the "Confession of Faith." After this the congregation were addressed relative to their duties to the elders. A very onerous post these elders seemed to fill! Verily, if they did their duty and interfered with their sinful brethren as they were bidden to interfere, methinks the old-established Church of Scotland would deal in anathemas as freely as the Church of Rome.

Sober and stern the congregation looked, fitting descendants of the rude old Covenanters, who counted their lives as nothing compared with the faith they loved. I joined in the singing with a "good courage," remembering how the forefathers of these people had bought their freedom of worship with their blood ; yet it was refreshing to be once more in the bright free air, with the birds singing joyously overhead, and the glad sunshine glinting amidst the trees, and making the flowing river like a pathway of silver adown the happy fields.

CHAPTER III.

There's not a nook within this solemn pass,
 But were an apt confessional for one
 Taught by his summer spent, his autumn gone,
 That life is but a tale of morning grass
 Withered at eve. From scenes of art which chase
 That thought away ; turn, and with watchful eyes
 Feed it mid Nature's old felicities.
 Rocks, rivers, and smooth lakes more clear than glass
 Untouched, unbreathed upon.—WORDSWORTH.

THROUGH the Trossachs—not walking or driving leisurely, stopping here and there to admire, now dragging this wheel, now getting down for a lounge up that hill ; but dashing, scrambling, tearing along on the outside of a rickety old coach, driven unicorn fashion, with a wild-looking “leader,” having a mad gleam in her eye, called “Black Bess” by the coachman, who instead of minding his horses, kept quoting Sir Walter Scott, to the

intense horror of one of our party, a superb four-in-hand "whip."

Oh! the perils of that drive—the ludicrous mixture of the sublime and the ridiculous. Black Bess scorned a whip, and the coachman employed his to illustrate his quotations. "There, madam, is the rock where Fitz James withstood Roderick Dhu.

His back against a rock he bore,
And firmly placed his foot before.

Hold in, Bess, will you; what's up now?" "My good friend," broke in the whip, "do let me have the reins. Do pray be careful." "Bless you, sir, don't be frightened, Bess is as gentle as a lamb when you let her have her own way. Hold hard, old girl. Now for it!" and like a mad thing, Bess was tearing down a grip, and pulling might and main up a steep ascent.

A few more alarming quotations and we came to Loch Katrine, lying graceful and beaming, with its little sunny isles beneath the shadow of its mountains and its trees.

A small steamer plies up and down this lovely lake, and you find yourself looking out for landmarks given you by Scott. The "beach of pebble bright as snow," the "silver strand," are there, it only needs "fair Ellen's" voice to take the place of the rough music of the paddles.

Loch Katrine is a graceful preparation for the grander beauty of Loch Lomond. I can hardly fancy a lovelier picture than that which bursts upon you as you near the inn of Inversnaid, Ben after Ben rising in the distance, some brown, some blue, and some with bright patches of green here and there.

I did not forget the Ferns. I spent hours hunting the hill-sides at Inversnaid. *Oreopteris* grew in abundance, with beautiful *Filix-foemina* and other common Ferns. I had made friends on the lake with a gentleman, armed as I was with trowel and bag. He joined us in the walk.

"What success?" I asked, half hoping he had found some rarity, half fearing lest his booty should exceed my own. He shook his head. I

opened my store triumphantly. "Look here," I said, "is not this a wonderful find?" and I displayed a graceful little Fern. "This is the *Woodsia ilvensis*!"

I saw a twinkle in the "Fern-man's" eye; but he told me gravely my specimen was only a baby "*Filix-fœmina*;" and then he added, how troublesome baby Ferns always were, and that one could not easily decide on a Fern unless there was fructification. I might hunt for varieties of *Filix-mas* and *fœmina*, but he thought I should find nothing else. Then he discoursed of Ferns in general and of Fern-hunters, how he found ladies looking for *Septentrionale* in a wood, for *Ceterach* in a ditch, and for *Asplenium viride* on a wall. "I do," said I.

"It is a pity to waste time," he answered. "Find out the whereabouts before you search. Know what you are likely to find, and then take anything strange you meet with." And so it came to pass, I only brought away from Inversnaid a few young plants of *Oreopteris* and a *Lyc-*

podium or two; but I took to more diligent readings of Moore, and wished there had been a few simple directions as to the "how" of finding Ferns.

Of course we made the tour of Loch Lomond in the steamer, which was filled with a strange mass of human beings bent on pleasure—the geologist with his hammer, the young girl with her sketch-book, the botanist with a round tin at his back, the pedestrian with his knapsack. For five minutes we scanned each other, and then turned our attention to the scenery. It was a glorious day—a day of strongest lights and shadows—a day of sun and cloud; and I could scarcely fancy any luxury greater than lying down on a sofa of plaids, and sailing through this beautiful world of waters—cut off, as it seemed to be, from any outer world by high frowning mountains, by steep shaggy rocks—every minute the scene changing, bold rugged Bens melting away into bright green islands, and these into a far-off distance of more gentle outline. Looking

from side to side as you approach Inverarnon, you came to a hill covered with firs, some standing, many fallen, and already 'barked.' A picturesque group of women in red petticoats and white jackets are seated by a picnic fire cooking; these are the 'barkers,' who live in rough huts built about the wood during their season of work, and vividly remind one of the olive gatherers in the olive woods of Sardinia.

From the head of Loch Lomond a coach conveys you over the Black Mountain and through the awful pass of Glencoe to the hotel of Banavie at the foot of Ben Nevis, where I was assured I should undoubtedly find *Polystichum lonchitis*; and up the mountain sides I tramped many a weary mile in the search, now scrambling up a rocky path, now floundering in a bog—but no *lonchitis*. Indeed, I may here own that I have never found one plant of this most interesting Fern. "*Lonchitidioides*" I have found in plenty, and some bearing such close resemblance to *lonchitis* as for a time to create a doubt even in the mind of

Mr. Bree; but the doubt cannot last very long, for I have proved the fact that *lonchitidioides* in time becomes *lobatum*, and after a while *lobatum* becomes *P. aculeatum*. I have watched the plants changing from year to year, and have had many an argument about it; but each Fern-grower can prove it for himself in three or four years.

I have one large plant of true *lonchitis*, which I bought at a small nursery without being able to trace its history, and from which I have this autumn divided three young plants. There is one feature in *lonchitis* which entirely divides it from *lonchitidioides*—the pinnules, even in the tiniest frond, lap over each other like the scales on a fish's back; each pinnule is furnished with sharp teeth, with a projection like an ear close to the rachis, which is covered with brown scales; the fronds grow stiff and erect, and its whole formation gives one the idea of protection from wet. The fronds spring from the centre, several sets of them during the summer, the whole

preserving a compact vase-like form. During the extreme heat of summer, after watering the Ferns, I made a practice of pouring a little water into the cup of the plant, thinking to encourage the new fronds. After some time I observed a little frond quite perfect, yet very small, spread itself like a guard over the nest of young fronds. I gave up my system of encouragement, and, instead, threw a little cocoa-nut refuse into the centre of the cup as a protection; and this has answered beautifully, and the plant has thirty fronds on it of this year's growth, but the long-continued drought has caused these to be less fine than usual.

In the wooded dells at the foot of Ben Nevis I found the *Pyrola*, whose pretty bell-like blossoms of white with a rosy flush were as fragrant as lilies of the valley. I brought several plants away, but failed to make them grow.

My next hunting ground was Oban and its neighbourhood; and here I had great success with *Cystopteris fragilis*, which abounds in many

beautiful varieties. On the road to the Kerrara Ferry I found *angustata*, with its acutely drawn-out length of frond and pinnæ; *dentata*, broad and stumpy-looking, bearing a near resemblance to *Dickieana*, save that the fronds are more robust and the pinnæ not quite so closely approaching each other. I have never found *C. alpina*, *C. montana*, or *Dickieana*; but I possess many healthy plants of each variety excepting *montana*, which I have lately procured from Mr. Veitch's nursery. It promises to grow rapidly as the others do, but I daresay it will need a little extra care.

The walk from Oban to the Ferry will repay the tourist, even if he be not a lover of Ferns. Amongst the heather he will find the golden asphodel with its feathery blossoms of exquisite form; and in July there are beds of rich ripe strawberries scenting the air, which blows pure and fresh around him. He should go at eventide, and watch the sun setting over one of Nature's loveliest scenes. The sea, broken into numerous

still, calm lakes by rocky islands, reflects every golden cloud, while the distant mountains form a frame of the softest blue; and above and beneath, it is the same fair scene.

Oban is a real Scotch town—you feel you are in the Highlands. The people talk a *patois* of English-Gaelic, and understand you with difficulty; the shopkeepers have an English of their own. It is a strange isolated community, grafting English fashions slowly on northern stocks.

You go to a “store” to buy calico or some little matter. “Have you any good calico?” you ask. “Yes—no—I think—my calico is worth hardly anything just. Yes, it’s very bad calico.” Perhaps you are obliged to have it, and to your surprise find it very dear. You remonstrate. “Yes, I think it’s very dear calico, and no good in it,” they answer.

Then their good nature is wonderful. They *will* know your business, and *will* insist upon trying to help you.

In a country walk you pass by what looks like

a huge washhouse. "Is that a washhouse?" you ask a poor woman in the road. "A washhouse, is it? Yes I think. Is it a washerwoman you want? Allow me to recommend you one; it's Mistress McFarlane, of Tweedle Street; she's just the most perteklar woman in fine linen and dressing."

Staffa and Iona are "done" from Oban, but it was just afraid of the water I was; so I watched the departing and returning steamer in peace, picturing to myself the damp beauty of Fingal's Cave; the ruined cathedral standing out against the clear blue sky; and wondering what Columba would have said to the Free Kirk in Scotland, and whether any Ferns grew upon the weather-beaten island.

I spent a day on Kerrara, hunting in vain; but it is not time wasted, for the shores of the island are very beautiful, and the slopes green and sunny, and many a lesson of life may be learned while listening to the quiet music of the waves breaking against the shore.

CHAPTER IV.

Bethink thee of the vales,
With their birds and blossoms fair—
Of the darkling nightingales,
That charm the starry air,
In the south, the gentle south ;
Ah ! our own dear home is there !

There's nae hame like my ain hame—
O I wush that I were there !
There's nae hame like my ain hame,
To be met wi' ony where ;
And O that I were back again,
To our farm and fields sae green,
And heard the tongues o' my ain folk,
And were what I hae been !—MOIR.

ONE great point in a tour is the sort of talk you meet with during its course. On the coach or in the steamer you are thrown into much nearer relationship with your fellow passengers, than on the less sociable railway. Unhappy they who

wrap themselves up in their dignity and chew the cud of their own thoughts, instead of enjoying a healthy interchange with the minds of others !

My black tourist's bag, with its conspicuously visible trowel, was a useful help to me in the matter. It proved a sufficient introduction to foreigners, and to those pleasant English people who travel with the happy wish to be pleased with God's glorious creation, whether in the human or natural world. Many a treasure has found its way to my bag from a fellow traveller's wallet, unlocked by the sight of the magic trowel. Many a talk has it given me of the vast forests of America, many a comparison of their vegetation with our own.

Shall I be pardoned if I say that of all foreigners I prefer Americans to travel with ? Their keenness and comprehensiveness of sight are extraordinary. While another would but take in the general outline of a view, an American has perceived and jotted down tidily in his memory every important feature, each tiny peculiarity. I once

spoke to one of the scarcity of Ferns about Loch Lomond. "Yes, madam," he replied; "but I gathered thirty different wild flowers there in half an hour."

Americans talk to you at once, and talk in a totally different manner from English people. They seem to be burdened with no lurking fear of there being danger in making a pleasant acquaintance—they do not appear to wish to know even your name. Smith is to them equivalent to Brown, if only Smith will exchange his ideas in return for the unreserved pouring-out of the treasures of their own well-stored minds. I have never known an English gentleman do this. He is always perfectly polite; but why should he trouble himself about a stranger he will never see again—a nobody? He has plenty to think about; probably others have the same.

But to return to my trowel, to which amongst other things I owe two beautiful clumps of *Sepentrionale*.

In the course of our wanderings, after "doing"

the Caledonian Canal, and searching in vain for *Hymenophyllum unilaterale* at the Falls of Foyers, and making many a pretty addition to *Cystopteris* from the Muir of Ord, we arrived at Dunkeld, that loveliest of all lovely halting-places, where hill and valley, rock and river, contend with each other in sweetest rivalry as to which shall lend the greatest charm to the scenes around. About two miles from Dunkeld is the Stenton Rock, and growing there side by side may be found *Asplenium septentrionale*, *A. germanicum*, and *A. trichomanes*.

Trowel in hand, I marched off to hunt. "Where awa?" said an old road-scraper to me; "ye'll be seeking for something, nae dout." I explained I was going to Stenton for Ferns. "Weel, weel, ye'll find them unco high, too high for a leddy, maybe."

The old road mender was right. I returned hours after, wet through with what in pleasant mockery is called Scotch mist, but fernless. "Ye'll hae been disappointed," said my old friend

when he caught sight of me. "Ye come to me the morn and I'll see. I live at Stenton ; ye'll hae seen my hous forbye the rock."

The next day I kept my appointment ; and my friend, true to his word—for he was a very Scot—had two large clumps of *Septentrionale* for me. "Oh, leddy," he said, "the gran gardeners hereabouts hae taen all the ither sort, and I could nae find ye one root."

When I offered the old man a shilling he answered, "Nae, nae, keep your siller, I am glad to hae pleased ye."

And I *was* pleased, for never have I seen in England such plants of *Septentrionale* as these. They were no unhealthy-looking scraps picked off the face of the rock, but compact tufts (one of them mixed with *A. trichomanes*), of three or four inches in size. Much has been written about the difficulty of managing *Septentrionale*, but I have hitherto found none. I planted these specimens (considerably reduced by gifts to friends) in an open Fernery facing the south, and they come up

year after year luxuriantly and well, but they do not increase.

Asplenium germanicum is said to grow on the Stenton Rock, as well as the *Septentrionale*: a plant of it was shown to me; the tiny forked fronds were about $1\frac{1}{4}$ inch in size, and not so broad as *Septentrionale*, the forked ends being almost as fine as a thread. I have never possessed this Fern, nor have I ever seen a healthy specimen of it, or one I should know as perfectly distinct from *Septentrionale*; indeed, I believe the plants shown to me as *germanicum* have only been diminutive specimens of *Septentrionale*.

From the Stenton Rock in the cold north my mind wanders to the sunny south, where, under conditions somewhat similar, and yet how widely different, I have seen at Bagnères de Luchon in the Hautes Pyrénées, the entire face of a rock, in the very eye of the sun, entirely covered with *Septentrionale*: the fronds were nearly double the size of our English Fern, and the forked ends one mass of rich brown spores.

I seldom look at Septentrionale without being, in thought, carried away to beautiful Luchon. I seem once more to be by the side of the Fern-covered rock. It stands jutting out on the road leading into Spain, down which gaily-dressed muleteers are driving their mules, laden with wood for the winter's use; the merry bells are tinkling in the air as the poor mules shake their heads under the heavy burden. On my left hand are jagged rocks, whose crevices are gay with wild flowers; on the right are beech-covered hills, with pretty *châlets* dotted about here and there, slanting down to the town, with the river, lined with golden poplars, flowing through. Before me, in the far distance, is the Port de Venasque: its snow-capped peaks glitter like diamonds in the sun, and seem to sparkle with delight at the glorious scene stretched out beneath them in the fair land of Spain. I inhabited one of those *châlets* on the beech-covered hill. The garden is a very wilderness of flowers, and in this wilderness there is a little oratory with a statue of the Blessed Virgin, whose shrine

is always decked with flowers, and the hand that places them there is the rough toil-stained one of the old housekeeper, Jeanne.

“My mistress used to put them there,” she said; “but she died when the little miss was born, and now there is only me.”

Good old Jeanne! with her hard features and tender heart! whose only outward religious observances seemed to consist in placing the flowers and in sundry crossings of herself. How much I used to enjoy our shoppings and marketings together in the early morning; Jeanne's head coquettishly adorned with a brilliant amber kerchief, tied in a dainty knot on one side, and she herself trying, with unexampled patience, to make me a proficient in (her) French, which consisted of a most bewildering *patois* of Spanish and French mixed together in one confused mass.

I have never found *Septentrionale* growing in the shade, nor do I believe it could endure such a situation; it luxuriates in warmth and sunshine, and does not care for much water. The one great

point in cultivating it is thorough drainage ; if there is any moisture hanging about, the base of the fronds will decay, and gradually fall off, and a tiny wireworm will come to help in the work of destruction. When the least decay is visible in the fronds, dig up the plant, and look to the drainage.

At Dunkeld I found quantities of very fine *Ruta muraria* growing in the old wall of the Duke of Atholl's park. I managed to pick out a great many roots with considerable portions of earth attached ; but, alas ! I have never made *Ruta muraria* live for more than two years in cultivation. I have tried it with old mortar, planting it upside and downside, and every way, but all to no purpose ; I am now trying it in a flower-plot nearly filled with drainage, placing the flower-pot sideways in the Fernery, and covering it with earth.

The Duke of Atholl's grounds are strictly preserved, and I have a strong aversion to going over houses and grounds with a bought permission, so

one day I determined to enter them as a free-booter. I was stopped by a little fellow.

"Ye'll nae be ganging there," he said; "it's the Duke's private walk."

"But supposing I'm the Duchess," said I.

"Weel, if ye're the Duchess ye maun go," said the boy; and then, amazed at his own temerity, he ran off, leaving me to retrace my steps.

On the road between Dunkeld and Aberfeldie I found a very beautiful variety of *Athyrium Filix-fœmina*; some of the fronds were nearly two feet in length, the stipes of the younger fronds were of a pinkish brown, and very bare; the pinnæ were thrice-pinnate, and the whole Fern had a graceful feathery look. I have since seen what I believe to be the same Fern under the name of *Filix-fœmina plumosum*. I found it not far from the pretty waterfall, called the Rumbling Bridge, where troops of merry children meet you with baskets and pinafores full of rich dark red bilberries, and in the far-off distance at eventide

the sunny glow of the south falls on ruddy banks of heather.

I found *Lastrea spinulosa* in many places in Scotland; it must be hunted for in shady nooks, where it grows side by side with *A. Filix-fœmina* and *Blechnum spicant*. Mr. Bree gave me a very curious specimen of *L. spinulosa* which he found growing on the Coleshill bog; the stunted frond was little more than a foot in size; in colour it was a sickly-looking greenish yellow. Mr. Bree also gave me a frond of the very same root when cultivated, and it would have puzzled any one but a close observer to have known they were the same Fern; and it is this altered aspect of Ferns, under altered conditions, that makes their study bewildering to a beginner. I dare not venture to say that *L. spinulosa*, under any conditions, would turn into *L. dilatata*, but it looks uncommonly like it; and you find varieties so nearly approaching both Ferns that it is difficult to name them. This difficulty does not exist with *Lastrea uliginosa*, the under pinnules of the latter being the

same size as the upper ones. *Uliginosa* seems to approach nearer to *L. rigida* than any other Fern, and yet on placing the two side by side it would be impossible to mistake one for the other; the entire growth of *uliginosa* being taller and much more robust, while the pinnæ are much farther apart.

Lastrea rigida I have never found, so I have been reduced to the necessity of buying one; and of all my Ferns I have found *rigida* the most tormenting to deal with: its likes and dislikes are as many and as unaccountable as those of a wayward child. When I bought the plant of an amateur dealer for 3s. 6d., it consisted of a nest of brown fronds, with one withered one about half a foot long, and two little deformed ones by its side. It was very unpromising, and my friend, the dealer, assured me it was an ill-natured subject that repaid all your care by giving you nothing but those black looks. I did all I could for the "ne'er do weel." I made it a lovely home with well-drained fine leaf mould for its food; but a

year passed, and its new fronds were dwarfed, dark, and ill-natured-looking; moreover they were evidently rotting away. I looked for the reason, and found a large Fern, planted above rigida, dropping some of its surplus wet upon it. I moved it to a clearer place, and at last I gave satisfaction. I housed it in winter, and planted it in a clear sunny spot in summer, protecting the young fronds as I do those of *Polystichum lonchitis*, and it has rewarded me beyond my expectation. It has now a crown of healthy fronds covered with fructification, and it has thrown out two young plants at its side: when these are well established I shall try the parent Fern out of doors all the year, covering it with litter during hard frosts.

CHAPTER V.

Stranger, if thou hast learnt a truth which needs
 No school of long experience, that the world
 Is full of guilt and misery, and hast seen
 Enough of all its sorrows, crimes, and cares,
 To tire thee of it—enter the wild wood
 And view the haunts of Nature. The calm shade
 Shall bring a kindred calm, and the sweet breeze
 That makes the green leaves dance, shall waft a balm
 To thy sick heart.—BRYANT.

DURING my absence from home I had a Fernery made for my spoils. I chose an open space of ground facing due south, so that in the summer time the Ferns would have the full light and warmth of the sun's rays. I did this, because I had noticed that the most rare and delicate Ferns I had seen, chose for themselves situations of the like character. The back of the Fernery abruptly descended to the edge of a pond, through which

there was a running stream. On one side there was an Elm tree, which overshadowed a small part of the Fernery. In making the rockery I had but one idea, and that was to provide a suitable home for the Ferns—one in which they could revel, and enjoy life as everything was created to enjoy it. The beauty of the rockery was but a secondary consideration, and, besides, at the best of times rockeries are but shams, and I never yet found a Fern that was taken in by them. If you transplant *Septentrionale* or a *Cystopteris* from a rock, so bare that the wonder is how it found sufficient food to sustain life, to similar conditions, it will die. All Ferns in cultivation require depth of soil and good drainage; so I had a large pit dug and filled with drainage, then I put in good rich earth and leaf mould. The stones or rock were disposed so as to form compact little beds about a foot square, rising tier above tier, the highest within convenient reach. When completed, the Fernery looked like the terrace gardens one sees abroad, and it had a beauty peculiarly its own—a sort

of tidy fitness for the purpose for which it was designed.

My Fernery was like my book of dried Ferns : for a year or two it presented instances of my failures rather than of my success. I planted large Ferns at the top—*Filix-mas cristata*, *Filix-foemina* with black stalks, *Onoclea sensibilis*, *Lastreas*, and *Oreopteris*. As time went on I found this plan would not succeed ; the drip from the large Ferns saturated the next tier of plants ; and wherever the drip fell, the fronds became decayed and mouldy. This I have found to be invariably the case. I also found the plants on the side of the Fernery under the shadow of the Elm tree gradually grow unhealthy-looking and dwindle away. A *Polypodium cambricum*, which is now a mass of healthy fronds and brown creeping roots, for two years obstinately refused to give me more than two little stunted fronds ; but directly I moved it to an open sunny space, it seemed to smile in my face, and very soon new and fine fronds were sent up to thank me.

Onoclea sensibilis is a native of Virginia, but it is so hardy and free in its growth that no Fernery should be without it. The fronds are large and strongly ribbed, something like the leaves of the Rhubarb: it sends up long bare spikes crowned with fruit, as in *Osmunda regalis*. *Onoclea sensibilis* is a very Bedouin in its wandering habits. It seldom pitches its tent for two seasons following in the same place. Give it plenty of house room this year, make it never so comfortable, and next year it will pass up far away in the midst of a bed of *Dryopteris* or *Cystopteris*. It makes itself at home anywhere, runs up hill or down hill with equal facility, and is never found where it is expected. I soon found the limits of the quiet Fernery too circumscribed for the versatile habits of *Onoclea*; so I moved it to a larger sphere, where it wins general approbation, and brings up a numerous family creditably.

The common hedges of Warwickshire furnished me with *Polypodium vulgare*, which I planted in the rough crevices of the sides and back of the

Fernery. It grows well without care wherever there is thorough drainage. It prefers living amongst the *débris* of decayed wood; and its rich golden fructification contrasted with the bright green of its fronds makes it "a thing of beauty," and consequently "a joy for ever," in any situation.

From the lanes about Fillongley I brought *Asplenium trichomanes* for the lower terrace. I also found *Adiantum nigrum* near Fillongley. This I planted in the crevices between the blocks of rock in several places, its wavy habit making it very useful for the adornment of the rough stone. The old bridge at Stoneleigh—about which so many a tale and legend exist—furnished *Ruta-muraria* for my many vain attempts at cultivation.

In the neighbourhood of Corley Moor I found *Lastreas oreopteris*, *dilatata*, and I believe *L. spinulosa*, also the *Filix-fœmina* with the black stalk.

The beautiful lake at Arbury contributed some *Osmundas*, but they were not born on the soil, so

I only placed them by the pond-side, looking forward to the time when I should find them growing in a habitation of their own choice. *Blechnum spicant*, with its curious spikes of fertile fronds, is also common in Warwickshire. It abounds in the hedges and lanes of Exhall, Fil-longley, and many other places, and forms handsome tufts for the lower ranges of a Fernery, or for spare corners where wavy green is wanted. I have found it with the ends of the fronds divided, as in the Hart's Tongue; but the divisions were never more than two, or at the most three, and the duration of the peculiar feature is very uncertain. I have lately bought of Mr. Ivery, at Dorking, a very beautiful variety of the *Blechnum* called *ramosum*. The end of the frond is tufted. I imagine this tuft to have been either made or increased by cultivation, as I have never found a Fern in the wild state approaching to it more nearly than the cleft end I have mentioned. I sent to Mr. Ivery at the same time for a *Polystichum lonchitis*, but I received a plant which appears to

be a mild form of lonchitidioides. The pinnules do not lap over each other; the habit of the Fern is reclinate and flabby, instead of firm and erect. It is a young plant, but I fancy I have named it rightly.

The *Scolopendrium vulgare* grows plentifully in Warwickshire, but I have seldom met with any of its many varieties there. About Fillongley it may be found with its long waving fronds measuring nearly three-quarters of a yard. When the snow hangs in rich wreaths about the hedges in the dear woodlands, and all nature around seems dead and shrivelled, hidden beneath its snow-white veil—under the friendly shelter of the hedge they have made their home, the *Scolopendriums* hold high revel in their brightest suit of green, laughing at winter's icy touch, knowing it has no power to reach the warm sap that flows beneath their thick coats.

The woodlands of Warwickshire have a charm that belongs only to themselves, and one that lingers about them through every season of the

year. Life there seems to take a richer, fuller tone than elsewhere. The trees strike their roots deep down in the soil, and send up their huge limbs heavenwards, forming shadows still and deep in the summer time. The thickets are musical above with the song of birds, and beneath lies spread a fairylike carpet of a million wild flowers. There the lark sings her sweetest song, soaring heavenwards, and the nightingales fill the evening air with melody; and man, living amidst scenes like this, insensibly shapes his life and inner thoughts into unison with the scenes around him, and, as Warwickshire Will has it—

“ Finds tongues in trees, books in the running brooks,
Sermons in stones, and good in everything.”

The converse he holds with them is earnest and true; and whether the biting autumn wind makes him steel his body to endure, or the summer air woos him to gentler thoughts of soft indulgence, he feels in his inmost man, “ This is no flattery.”

The intellect of the people bears analogy to this outer life. It may have no wide range, there may

be no versatility of genius, but the Warwickshire artisan brings to the foundry or the loom a mind so concentrated on the work before him, as to constitute him a workman unsurpassed by any county in England. The language spoken by the people is essentially strong and truthful. They tell you their sorrows and their joys with a wonderful open-heartedness, and with a power of thought and freedom of language I have never heard equalled. Church and state are dear to a Warwickshire man in proportion as the parson "shows a good light," and the master gives a "fair wage for a fair day's work." But I have wandered away from Warwickshire lanes to Warwickshire people—a short digression—for many a white-washed cottage nestles beneath the spreading trees in the lanes, and many a welcome from old friends has greeted me as I appeared trowel in hand.

The Warwickshire lanes abound in *Polystichum aculeatum*. It may be found in its varieties of *lobatum* and *lonchitidioides*, side by side, but the

latter is the more rare. *Polystichum angulare* is also to be found. *Aculeatum* may be known from *angulare* by the darker green of the fronds, by their stiffer habits of growth, and by the prickly nature of the pinnæ. It is necessary to study both Ferns together to be able to decide with certainty, at a glance, which of the two is before you. *Ophioglossum vulgatum* grows in the meadows of Warwickshire; but the Adder's-tongue is not happy in cultivation, and it is so common that, like *Pteris aquilina* or Bracken, few care to cultivate it. I transplant *Ophioglossum* yearly to the Fernery, but only to see it yearly devoured by slugs. Eventually I discarded from the Fernery nearly all of the large Ferns, planting them in good rich soil in the walks leading to the rockery. *Filix-mas*, *Filix-fœmina*, *Lastrea dilatata*, and the *Scolopendriums*, grow well and handsomely in the shade—indeed they may be said to prefer it.

One of the handsomest foreign Ferns for outdoor culture is the *Struthiopteris germanica*. Its

perfect vase-like form of tender green, throwing from the centre rich-looking spikes of fruit, contrasts well with the dark robust *Filix-mas*, and forms a beautiful object for the eye to dwell upon.

Nothing but Ferns should be planted in a Fernery, and great care should be taken to make good drainage at the bottom of each separate space allotted to a Fern. In planting them you must be careful that a large Fern does not overdrop a small one.

On my return from Scotland I planted *Septentrionale* in an open space in the full sunshine, with good earth and drainage, and it has flourished well. I put a specimen of each *Cystopteris* in the Fernery, turning the others into a border for a flat Fernery I made without rock. They grew well in this situation, increasing rapidly, so that in a couple of years I could have stocked three or four Ferneries.

Dryopteris and *Phegopteris* I planted on the lower range and at the sides of the rockery; but

they are troublesome in cultivation, the creeping roots finding their way into each other's houses, and producing a confused but always beautiful tangled mass of green.

CHAPTER VI.

Not from life

Have I been taken ; this is genuine life

And this alone—the life which now I live

In peace Eternal ; where desire and joy

Together move in fellowship without end.—WORDSWORTH.

ALL my Fern journeys were not made in the shape of tours, where public conveyances and public inns throw one into mixed society, giving to one's thoughts and associations a diffuse itinerant character. Some journeys there were, taken in choice companionship, which stand out clear and bright in my memory like sunlight on a hill, marking each blade of grass, each tiny flower, with a distinct existence of its own ; so that I can say, "as I gathered this leaf my thoughts gathered round some subject, made clear to me for the first

time by the light of the genius of my friend;" or "As I uprooted this Fern, a long-cherished prejudice was uprooted with it."

Insensibly, in my mind, certain Ferns have become the embodiments of certain graces; they act upon me as monitors, reminding me of voices passed away that I never heard save in tones of love and charity, luring me on to a life of truth and beauty open alike to all.

Amongst my brightest representative Ferns is the *Ceterach officinarum*. I have never found any difficulty in cultivating *Ceterach*. Although it is a little wayward in the choice of its own habitation, yet where it does grow, the walls will be full of it, every niche and corner adorned by its prettily crimped fronds—now shining green, now russet brown, as the sunlight may fall. I have usually found *Ceterach* growing on old stone walls, where a good deal of lime has been used in the mortar. In this position the fronds do not attain any great luxuriance, and are often so curled that only the brown mass of spore-cases at the back

is visible. It is sometimes to be found on rocks, and in this situation the fronds will reach six or even seven inches in length, while the full fructification will form a little border of brown fur on the outer side. Whenever I look at *Ceterach*, it seems to whisper to me—

“He prayeth best who loveth most
All things both great and small ;
For the dear God who loveth us,
He made and loveth all.”

Bound on a pilgrimage to Clevedon in Somersetshire with a friend whose life taught me the spirit of the ancient mariner's rhyme, we stopped at the little village of Ashton near Clifton, and there, abounding in profusion, we found *Ceterach*. All the lower parts of the walls had been cleared by wayfarers like ourselves ; but high above it hung out its green banners too temptingly to resist. We tried to reach it in vain. Old women in white, full-bordered cap and neat kerchief, came out to look. “Would miss like a chair and a knife ?” Thus armed, “miss” was invincible ; and under the smiling protection of the old women she scooped

out brick and stone, and a basketful of healthy plants, shortly to be put on the lower tier of the Warwickshire Fernery. At La Spezzia in Italy I found a diminutive form of *Ceterach*, which might be called pinnate. It was growing on a rock within a few yards of the tideless sea, facing the glorious bay, where a whole fleet could ride at anchor. Nothing could exceed the grandeur of that Spezzia bay on a clear Sabbath morning in autumn, a cloudless sky overhead, and the deep blue waves breaking into white ripples about the huge men of war, whose gay pennons bespeak their nation. Eight-oared boats are passing from the ships to land, bringing, it may be, some of their crews to join the motley throng of worshippers gathered in the cathedral to hear mass. Some of the women kneeling there have white linen folded like dinner-napkins on their heads; others have the Spezzia hat—like a little cheeseplate, made of fancy straw, and trimmed with scarlet braid; others, again, have the Genoese headdress—a gay cotton shawl like a counterpane, wrapped

round them, covering the head. Some are talking, some laughing gaily, but at the elevation of the Host every sound ceases, and every knee is bowed in adoration. Yes, there are *some* things revered in Italy—reverenced by rich and poor, by men and women, by everybody everywhere.

From the Cathedral at Spezzia, by the help of the magic Ceterach, a slight transition takes me to the old parish church of Clevedon, where lies buried Arthur Hallam, the talented son of the historian Hallam, and the "A. H. H." of Tennyson's "In Memoriam"—the noblest monument that man's love ever raised to man, on which Mr. Tennyson lavished, with the prodigality of boundless affluence, the wealth of his intellect, the riches of his soul. We poorer mortals deck the graves of our beloved ones with simple flowers that perish in the using. It was for Tennyson alone to weave undying wreaths, each chaplet bright with the hues of Paradise and fragrant with the breath of love. As we stood by the simple marble slab placed on the grey wall of the old church, we marvelled what

manner of spirit had animated the poor dust beneath our feet, capable of playing on the chords of Mr. Tennyson's inmost nature, and of awakening strains of such perfect harmony. As in memory I now recal that hour and the friend by my side, the name of Arthur Hallam fades away, and another takes its place; but the beautiful Latin inscription, rendered in simple English verse by a loving hand, still reads thus—

“Farewell, thou dearest, best beloved,
Torn from our longing eyes!
May we who mourn thee rest with thee,
With thee together rise.”

I may not venture to describe Arthur Hallam's resting-place. We read in “In Memoriam :”—

“The Danube to the Severn gave
The darken'd heart that beat no more ;
They laid him by the pleasant shore,
And in the hearing of the wave.”

As Ceterach is in my mind the embodiment of all that is pure and enduring in friendship, so Botrychium lunaria, or the Moonwort (occupying, like Ceterach, a separate niche in Ferndom), represents all that is capricious and unstable. It

is not that *Botrychium* gives you back black looks for your care : on the contrary, it repays you with an appearance of the most felicitous enjoyment. It seems to revel in the change of air ; its round little pinnæ look fatter ; its tiny spike of fruit looks richer. You flatter yourself that at last you have your friend safe ; but lo ! in the spring when you look for him he is gone—utterly gone. *Botrychium* can hardly be called a rare Fern, for it has a very wide distribution ; but its minute size and peculiar habit render it difficult to find. Its bright green fronds are the colour of the rich meadow land in which in Shropshire, Herefordshire, and other counties it is to be found. In any situation it requires a keen eye to hunt it out. One of its loveliest haunts is on Haldon Hill in Devonshire, where, in the months of May and June, it grows freely on the richer portions of the soil.

When it opens its dewy eyes in the early morning of spring, what a panorama of beauty and glory dazzles them ! Hills, bright with the green of

early corn, sloping down to pretty farmsteads, nestling in orchards wearing a rosy veil of bloom. Beneath the undulating hills, stretching far away, the boundless expanse of ocean, over which the advancing sun makes a pathway of light; and as he comes up on his royal way, beacon after beacon, on the grey range of the Dartmoor Hills (which have been as it were a pillow for my Fern), proclaims to the yet sleeping world that the day god has arisen. On the right hand and on the left, beauty—beauty of tree and flower—beauty of hill and dale—beauty of rock and river—and beauty exceedingly glorified of ocean, girt on either hand by ruddy rocks boldly advancing into the angry waters or retiring far back, leaving a gentle sweep of bay, where ocean-tossed mariners find rest, and from whence the fisher's boat puts out in safety.

Happy Botrychium, bred up in scenes like this! No wonder you say to yourself, when I ruthlessly dig you up with my iron spade (the fibrous roots making a trowel useless), "One woman may dig

me up, but twenty shan't make me live." I never have made you live, and I fear I never shall. I treat *Botrychium* like an annual, and transplant it yearly to the Fernery; but I do not care for it. It has but one form of beauty, and that is short-lived, and you see it all at once. It comes up short and stumpy, just where it pleases—it won't be put out. It waves over no broken stone, it adorns no tempest-beaten tree. If you transplant it, it dies; if you leave it, at the first hint of winter it perishes. Often and often I have wished it might be banished my favourite kingdom, and consigned to the land of "lords and ladies," to which, in spite of all botany, I believe it more than half belongs.

Ophioglossum grows on Haldon, not far from *Botrychium*, which it much resembles in its habits. In the lanes leading to Haldon I have found *Adiantum nigrum acutum*, the variegated *Adiantum*, a curious variety of *Polypodium vulgare*, having each pinnule cleft at the end, *Trichomanes*, *Blechnum spicant*, &c.; and in the gullies,

the giant *Filix-mas*, and *Lastreas dilatata* and *spinulosa*.

Lastrea thelypteris has also found a home on beautiful Haldon. The spot it has chosen is a green swamp in the midst of the everlasting hills. The fronds make their way through reed and briar up to the fair sunlight, and sometimes will measure a yard and even more in length. *Thelypteris* is exceedingly troublesome in cultivation, from its creeping habit; and I should recommend it to be placed at the back of the Fernery, where there would be the greatest amount of shade and damp, and where it would be out of the way. Growing wild, *Thelypteris* is not without beauty; but in cultivation it has nothing particular to recommend it. The fertile fronds have no decided character of their own, but look like a common frond, ill-grown and faded. Its chief interest is the difficulty of getting it out of its treacherous lurking-place,—so green and safe in appearance, so unsubstantial in reality. Bogland abounds in beauty. The golden asphodel is there, and the

little pink pimpernel, and there the sundew lifts up its white blossoms to the early sun; and while you search for these and other treasures, the startled kine turn round and look at you with half curious, half-doubtful eye.

Not far from Haldon, on the Chudleigh rocks, I have found a curious form of *Polypodium vulgare*. I suspect it to be a permanent variety; and though it is not yet *Cambrium*, its pinnæ being narrower and its fructification more abundant, it approaches very near to it in some of the plants; and I look forward to cultivation improving its form and size, which at present are rounder and smaller than those of the true *Cambrium*, the middle pinnæ being the widest.

I found my first wild *Osmundas* near Exmouth. They grew in an old forsaken orchard, where one took each step in danger of being swamped. The marshy nature of the ground suited these noble Ferns, and they grew up right royally on every side, their fronds waving in the breeze. I never saw more beautiful sunsets than there are at

Exmouth. The painter Danby told me he made his home there on that account. He had made long wanderings, seeking the beauties of the setting sun, and had found the concentration of all he sought at Exmouth. Shortly after Danby told me this, the curtain of night fell on him, and the painter's own sun set for ever!

CHAPTER VII.

Brave Devonshire boys made haste away,
When news did come from Tinnmouth Bay,
The French were landed in that town,
And treacherously had burnt it down.

On Haldon Hill they did design
To draw their men up in a line,
But Devonshire boys did make them run
When once they did discharge a gun.

The Cornish lads will lend a hand,
And Devonshire boys will with them band
To pull the pride of Monsieur down,
Who basely burn'd poor Tinnmouth town.

Old Song.

ONE of the greatest difficulties in Fern-hunting is the not knowing what you are seeking, nor where you are to find it.

I had never seen *Hymenophyllum unilaterale*, or *Tunbridgense*, when I set off one morning to

search for it somewhere in the torrent bed of the West Lyn, as it takes its way amidst rock and forest tree, under Lyn Cliff, to the sea at Lynmouth. Able-bodied must they be who venture on the like errand; able to contend with a down-hill rush from Lynton, and an up-hill scramble amidst moss-covered rock and leaping waters; now steadying oneself with a branch of an overhanging tree, through which the sunshine gleams; now warily stepping over fissures and chasms, with the river bubbling beneath. And then the grand discoveries and the failures! The learned way in which one strives to palm off some pretty moss upon oneself as the veritable Tunbridgense, or at the very least Wilsoni, with the pleasant and extremely logical argument, "Filmy Ferns are moss-like plants—this is a moss-like plant: therefore this is a *Hymenophyllum*." And then the false argument leading to the true conclusion, for at last in my hand is a large mass of moss-like plants, and lo! it is *Hymenophyllum Wilsoni*: and why is it not Tunbridgense? I have found

some of these Filmy Ferns much finer than others, and I call the finest Tunbridgense; but I am afraid that in reality I have only found the Unilaterale, and I am obliged to own that when I have found it I have never kept it alive for any time. I have planted it on a brick in a running stream, but a rush of water washed it off; I have tried it in a flower-pot with a glass over it, but a little inattention, or a visit—and I found it damped off. Still it is worth hunting for, if only to see it at home sporting with Naiades and Dryades. It seems a graceless thing to take it away to pine and die, either in solitude or with companions uncongenial to it. I always feel loth to tear the little Fern from the rock it so prettily adorns; there is something sad in the look of the bare uncomplaining stone when the companion that gave it all its beauty and its life is gone.

I was once walking in the country with one who spared himself but little recreation from a life of toil in London—not literary toil only, for the

gamins of the London streets were gathered into schools and taught by him. It was spring time, and the lanes were sweet with the breath of flowers. By-and-by I spied a primrose root, and as I was about gathering the flowers my friend said: "Nay, leave them alone, they look so homelike; they did not choose that quiet corner and deck it out so daintily for you to destroy their labours in a moment. Let them live." Nature, to the toil-worn London man, was a living, breathing presence; he drank with a thirsty grateful heart at the fountain of her beauty; but he would fain have left the waters undisturbed for the enjoyment of others. Yet we, who boast ourselves such lovers of Nature, are often at best only destroyers.

Lynton and Lynmouth abound in natural charms of a wild and strange character. The "Valley of Rocks" brings to mind a shadow-like memory of the Pass of Glencoe, although the "Chimney" and "Castle Rock," "Rugged Jack," and the "Devil's Cheesewring," never rise

into the solitary grandeur which leaves Glencoe unsurpassed by any other scene in Britain.

I was not very successful in my Fern hunts in North Devon. I found a small plant of *Adiantum capillus-Veneris* at Combe Martin, and I saw some more, but it was too high for me to reach. The little bay is worth a visit on its own account. And as I sat to rest on a rock above the sea, the voices of children, playing with the boats and lobster baskets below, came round me like music, tempting me to descend and survey, nearer a picture superior to any even in Collins's happiest style.

A stranger was then a stranger at Combe Martin, and the bright-cheeked urchins left their play, and came running bare-legged out of the water to gaze. "Did I want Ferns?" Presently the happy group were tumbling up the rock I had looked at with such timid eyes; but children's hands are destructive implements, and fronds without roots were the only result of the scramble.

I made another attempt to reach *A. capillus-Veneris* at Ilfracombe, taking with me a lad who

seemed ready to climb the side of a house if necessary ; but all the available tresses of Maiden-hair had been shorn away, and I returned with only a tinful of sea creatures to reward me for my pains.

It seems cruelty so entirely to destroy the habitat of any Fern : yet, if the present rage continue, I see no hope of any known species being allowed to remain in its old haunts. The poor Ferns, like the wolves in olden time, have a price set upon their heads, and they in like manner will soon altogether disappear. We must have " Fern laws," and preserve them like game.

In the neighbourhood of Ilfracombe I found a few *Scolopendriums* with the ends of the fronds cleft, but they were hardly worth bringing away. I also found *Polystichum angulare* growing in magnificent profusion ; *P. aculeatum* was comparatively rare.

Between Launceston and Holsworthy, I found the only *Lastrea Fœnisecii* I have seen wild in Devonshire ; it was growing in an old hedge by

the roadside, and the fronds were small and ill-grown, wanting the rich fulness of size and colour that distinguishes the *L. Fœnisecii* in Cornwall. There is no mistaking this Fern when you find it. It has the appearance of crisp, curled parsley, so entirely "recurved" is each pinnule.

I have heard *L. recurva*, or *Fœnisecii*, or Bree's Fern, described as very refractory in cultivation, but I have never found it so. It will adapt itself to any situation where there is good drainage; stagnant soil is its death. In dry, sunny aspects, the fronds of *Fœnisecii* will almost creep along the ground, as if to make a shade for each other. In an open space, where there is shade from a hedge, it will shoot up its feathery sprays of tender green tall and strong, making a very handsome plant. It is always interesting in its growth and habits, and the young fronds are often green in midwinter, and make lovely foliage for the vase. I have never found it on rocks, or in any county but Cornwall, save in the instance I have named, in Devonshire. In cultivating it in

Warwickshire, I used a little rich earth mixed with leaf mould.

In Scotland I found a variety of *L. dilatata*, with its pinnules curved in a convex manner. I showed the specimen to Mr. Bree, and he thought the curved look would vanish with time. This has not proved to be the case, though I have had the Fern for some years. *Lastrea cristata* I have never found, but I have some good plants of it; it increases quickly in cultivation. *L. cristata* has one peculiarity which I have noticed in no other Fern—the venation is clearly defined on the outer side, making a regular pattern on the pinule. This has been the simple mark which has always, and at once, made *L. cristata* known to me. The fronds of *cristata* are slender and pretty, but they are of so fragile a nature that they bow, bruised and broken, before a high wind, so that the plant has usually an untidy appearance in the Fernery.

Asplenium marinum I found at Exmouth growing on a rock far removed from the sea. It

also grows on the coast about Teignmouth, and more plentifully near Dartmouth, that strange old western town, with its ill-conditioned streets, leading nowhere, huddled like waifs by the river side. The best thing to be done when you get into Dartmouth, whether by the pretty river route or by the railway, is to get out of it again by hiring a boat, and rowing to the mouth of the river, where you may pry after *Marinum* in caves hollowed out of the rugged rocks, where tired waves break and die, and sea-birds wail. The coast on the right of Dartmouth begins to assume the characteristics of Cornwall; the red sandstone gives place to granite, and the softer features, that make the charm of Devonshire scenery, disappear altogether. The Devonshire dialect, so soft and courteously misleading, is soon lost in the rougher tongue of the "Tre," "Poll," and "Pen" of the dear Cornish land—a land so separated by the character of its people and its natural scenery from the rest of England, that during my first visit to Penzance I

found myself continually saying, "When I get back to England." It is a land of Ferns and wild flowers—a land of old ecclesiastical monuments and wayside crosses. Each village has its history and its records of interest; its church—a landmark to sailors at sea, and to travellers across the waste; its baptistry—the bubbling waters of the clear spring, rising on some dreary moor, guarded by a few rough slabs of stone covered with ivy and decorated with Fern. The true Cornish man has a rough intelligence that beams on his face, and takes expression in words of singular fitness to the subject which engages him. He has a self-respect that gives to his conversation a freedom unaccompanied by any mixture of vulgar familiarity. Most of the Cornish miners have their bookshelves, containing volumes so successfully read that humility keeps pace with the knowledge acquired. This intelligence, with the apt way of expressing it, gives a stamp of originality to the people that you can hardly fail to recognize.

After a visit of some months to Penzance, I

went a tour in the north of England, and in going over a silver mine I was accompanied by one of the miners, who explained the different details of the mine, and the processes of refining the silver. At last we arrived at the final process, and saw the silver purified of all its dross. I made some slight remark to the man on the exceeding beauty of the ore, which he instantly answered by saying, "Yes, madam, I trust we shall be found as bright as that when the trials of earth have done their work, and purified all sin from our hearts: we shan't think much of the fire we have gone through then." I looked up at the intelligent face, and said, "You are from Cornwall?" He asked me how I knew, for indeed it was so; and then he went on to tell me of his home and his prospects in the country he loved so much better than the north.

"One and All" is the motto of Cornwall, and it expresses much that is pleasing in the character of the people.

The gardens I saw in Cornwall (they were not

many), had a look of southern untidiness, Nature being left much more to herself than in the north. Large camellia trees were in the borders, and on Christmas-day I gathered a nosegay that would not have disgraced midsummer. The house I inhabited had a terrace in front, with a lawn sloping down to an orchard, over the bloom of which you looked on the sparkling sea. To the left were St. Michael's Mount and Marazion; to the right, the fishing village of Newlyn and the sweep of rocks by Mousehole.

But I am leaving the Ferns unnoticed too long, and they will lead me into many a well-remembered spot, and take me amongst fishers and miners, who had always a kindly word for the stranger, that often and often left her the wiser for its speaking; and we cannot say as much for all the conversation we hear in drawing-rooms.

CHAPTER VIII.

“ A good sword, and a trusty hand,
A merry heart and true,
King James’s men shall understand
What Cornish lads can do !
And have they fixed the where and when ?
And shall Trelawny die ?
Here’s twenty thousand Cornishmen
Will know the reason why ! ”

And shall they scorn Tre, Pol, and Pen ? and shall Trelawny die ?
Here’s twenty thousand Cornishmen will know the reason why.

Out spake their Captain, brave and bold—
A merry wight was he :
‘ If London Tower were Michael’s Hold,
We’ll set Trelawny free !
We’ll cross the Tamar land to land,
The Severn is no stay,—
All side by side and hand to hand,
And who shall bid us nay ? ’

And shall they scorn Tre, Pol, and, Pen ? &c.”
Old Song.

It was in Cornwall that I first became acquainted with the *Asplenium lanceolatum* growing in its wild state. I had had plants sent to me from the

Channel Islands, but I had not succeeded in making them grow out of doors; and even in a greenhouse they could not be said to be happy in cultivation. No one who had seen lanceolatum only in cultivation would know it for the beautiful Fern so graceful in proportion and healthy in colouring, when growing in soil and under conditions suitable to it. In its wild state, lanceolatum is very variable. In the old stone walls round Penzance it may be found in quantities, stunted in size, and with an ill-natured look, as if it had come into existence upon the barren wall contrary to its own inclination, and, being compelled to submit, it would at least do it with as bad a grace as possible. Here and there, growing in peaty, well-drained soil, I have found it with its fronds measuring more than a foot in length, perfect in form, and in colour a bright dark green. From the vast quantities of plants in the wall, and the less number away from it, it would seem as if some quality in the lime of the masonry was necessary for the increase of this Fern.

Growing side by side with *Asplenium marinum* on the rocks of St. Michael's Mount, I found a very interesting variety of *lanceolatum*. At first sight I took it to be a variety of *Adiantum nigrum*; but its form was lance-like, its stalk much greener, and its habit of growth crisper and stiffer. I have shown the specimen to a good authority on Ferns, and it was declared to be *Asplenium lanceolatum*, partaking largely of the nature of *marinum*. It has retained its peculiar character for three years, and flourishes in cultivation as I cannot make either *lanceolatum* or *marinum* do. It grew on a cliff, intufted with *marinum*. I could not reach it myself, but I got one of the sailors who rowed us to the Mount to gather it for me, and he called it *marinum*; but this it could not be. In growth it presents a compact tuft of shining dark green fronds.

The walk from Penzance to St. Michael's Mount is chiefly interesting from the quantity of rare and curious plants that are to be found on the low sandy marsh, along the upper part of which the high road runs. But the way to approach St.

Michael's Mount is by water when the tide is full. The old dwelling place of the St. Aubyns, placed on the pinnacle of a bold rugged rock, stands out from the blue waters beneath, showing itself clear and distinct against the blue of the heavens above, like the fortress of some enchanted princess, accessible to fairies alone. As you near the miniature island, a few cottages are seen on its tiny shore, and you are landed on a flight of steps that leads to the Mount.

Penzance abounds in beautiful country walks. It has, too, its Hyde Park or Cascine, where the fishermen, miners, and citizens, with their wives and children, assemble every Sunday afternoon in holiday attire, pacing up and down on a raised walk by the sea shore, exchanging kindly greetings with each other. I have never seen this custom in any other place in England; it gives to Penzance the appearance of a foreign town on a fête day.

In the country walks you will find every field, and thicket, and hedge abounding in strange and

curious varieties of *Scolopendrium*. I found some with the ends tufted and fringed—some with the margins crimped, and the spore-cases diverging from a line running all round the outer edge of the frond. In cultivation, this latter Fern has progressed into stiff narrow fronds most curiously crimped, and the upper end divided into several forked tongues. I found several *Scolopendriums* approaching to *undulatum*, but they have not altered so much as the more monstrous forms. I have a little theory about *Scolopendriums*, the truth of which I have tested till it might almost be called a fact. When I have found a Fern slightly fringed at the sides, and have planted it by the side of a true *marginatum*, the inferior Fern shortly acquires the habit of its neighbour, and gradually becomes transformed into the likeness of its peculiar growth.

The transformation of Ferns is exceedingly curious. I have for some time been watching a fine plant of *Asplenium viride*, which is slowly becoming divided into two or three forks at the end

of the frond. The pinnae also are acquiring a toothed appearance, in some cases being cut almost up to the rachis, till it approaches very near to *A. fontanum*, although the difference is still too marked for any one to mistake the one for the other. This plant of *viride* is a near neighbour of a fringed and forked *Scolopendrium*, and not far from *A. Filix-mas cristata*. I believe all *Scolopendriums* are improved by cultivation and by good society; but this acquired beauty never has for me the same charm as natural grace. It is like the difference between a learned and a clever man—between water pumped up from a cistern, the length and breadth of which you can measure, and the never-ceasing flow of a rivulet on which the sunbeams sparkle and die. Still we do not grumble at a cistern when we do not possess a spring, and there is much pleasure in watching all the changes of the *Scolopendrium*. They have one other great point of recommendation—you may find something new in them, some strange deformity which no one has noticed before ;

so that each hunt after Hart's-tongue has a sort of arctic-exploring character about it.

Asplenium marinum grows in large quantities round the shores of the "Lyonesse." At the Logan Rock, which must be "done" with the rest of the Cornish sights, *marinum* is to be found in fine large clumps; but the many visitors who make pilgrimages to the huge plaything do not leave much available for ladies' reach. The Logan Rock is said to be between 60 and 70 tons in weight, and so finely poised that even a woman's strength can set it in motion. I saw it rocking to and fro as I was scrambling for Ferns in view of a fine expanse of ocean, breaking into gentle ripples on the white beach of the bay beneath.

A most interesting walk takes you from the Logan Rock to the ancient church of St. Buryan, where the eye can take in at a glance all the peculiar characteristics of Cornish scenery, and many of the antiquities which abound in the neighbourhood. In the churchyard of St. Buryan there are two well-preserved and very ancient

crosses, on one of which is a rude representation of Christ on the cross. Within the church is a curious coffin-shaped monument, round the edge of which is an inscription in Norman French to "Clarice, the wife of Geoffrey de Bolleit," ending with the promise of ten days' pardon for all who pray for the lady's soul. This monument is the more remarkable, as all vestiges of gentle residences have long since passed away, and only a few poor cottages remain to mark the site of what once was a place of note.

The view from the church is wild in the extreme. Standing on the summit of the old tower, the eye roams over tracts of barren land golden with furze; huge upright stone pillars lie scattered here and there in the fields around—wondrous monuments of the past, when the dark belief of the Druids held sway in the land. Beneath is the emblem of the crucified Saviour, at whose coming the mists of unbelief faded away; in the distance, shining far round, is the wide expanse of the Atlantic Ocean, with the islands of

Scilly made visible by the gleam of a setting sun.

On this one excursion you may find *Osmundas* at Lamorna Cove, *Lastrea recurva* by the hedge side, *Asplenium lanceolatum* in the walls, *marinum* on the rocks, and all the common Ferns everywhere. Besides the Ferns, the district abounds in rare wild flowers, such as are not often found in England.

One of the most pleasant excursions from Penzance is to Cape Cornwall. The carriage must be put up at the small mining town of St. Just, which is situated about a mile and a half from the Cape. The rock juts out from the sea, bold, erect, and defiant,—able to cope with, and to hurl back again, the angry waves as they rave at its base.

I have never seen such glorious waves as at the Land's End and Cape Cornwall. They seem imbued with some living power of evil, urging them on in mad fury to destruction. To the west of Cape Cornwall there are two dangerous rocks,

called The Brisons, rising abruptly from the sea upwards of 60 feet at high water. I have seen these nearly hidden by the foam and spray of the waves as they break roaring against them.

But Cape Cornwall is best in a calm. Descending by a steep path cut in the rock, you enter upon a bay, into which the waters come lazily with a lapping, lulling sound, gurgling round the boulders of rock, and swelling out the beds of the streams which trickle from the heights. Gulls, with their soft white plumage, wheel in gentle flights above your head. The air is soft and balmy as in Italy; and if you will, you may pass hour after hour in the delicious calm of perfect repose—repose unbroken even by a dream. But also, if you will, as I did, you may leave your companions, and stroll on and on, peering into sea-caves and old shafts of mines, till you light upon—not a gull or bird of any sort—but a lad, whose bright eyes shine with keen intelligence out of a copper-coloured face, and whose hands, face, and clothes are all of the same copper hue. A quick glance

and a nod, and we are sworn friends. By-and-by we find a cave literally covered with *A. marinum*, hanging in rich clusters from the roof and sides, wherever the waves do not reach—not common *marinum*, but the true Cornish variety, with fronds measuring three-quarters of a yard in length, and the pinnæ very narrow and very far apart. My young friend and I soon secured a basketful of beautiful specimens, conversing all the while on the people and things in the mining district. Wages were pretty good; but there was the old grievance of “tommy” shops and delayed payment, necessitating the running-up of scores at the small shops, and the payment of larger prices for inferior goods. In religion, the miners were for the greater part Methodists; Bible Christians, &c., with a slight reaction in favour of instantaneous conversion, as produced by Mr. Aitken and his followers. I asked “Was Mr. Aitken loved?” “Yes, indeed he was. There was no hour by day or night he was not ready to be at the service of the poor. He was good, and the Methodist

parsons were good." And so my friend patronised first one and then the other, and doubtless thought himself very good too. Thus conversing, we came back to my companions, whom I left looking too sentimental for aught but lotus-eating, but whom I found devouring cake and sandwiches with the rapidity and destructiveness of locusts. The copper boy sat down on a rock and devoured too, giving to the picture a richer tone of colouring than even blue sky or white gulls could produce.

I never found the true Cornish variety of *marinum* excepting at Cape Cornwall. In cultivation, it loses much of its individual character. It diminishes in length and in the narrowness of the pinnæ, but it still preserves a certain peculiarity of outline sufficient to separate it from the common *marinum*.

CHAPTER IX.

Hidden close from human eye
Violets do love to lie,
Only for the tell-tale air,
No one could discover where ;
But there's an Eye Which on them dwells
With sunshine, soft and true,—
A Hand Which fills their purple bells
With drops of morning dew.

Tho' they love the shady nook,
And with bee and babbling brook
Communing, with fragrant sigh,
Live, and bloom, and breathe, and die ;
No gloomy anchorites are they,
In lonely severance sad,
But in their gentle, quiet way,
They make God's creatures glad.—MONSELL.

IN writing my experiences of Fern-hunting in Cornwall, my pen has a lingering habit, and my thoughts wander away from the Ferns to the people with whom I was thrown into pleasant

association during my Cornish visit, and upon whose characters and habits of life, Mr. Aitken's influence was telling perceptibly, telling upon rich and poor in a manner that made itself felt by every visitor in Penzance.

The man who drove the donkey-chair, the miner who showed us short cuts over terrible precipices, alike had some tale to tell of wonderful conversions made with noise and clamour, in which it seemed to me, that the worse the "ground," the better the "seed sown" was supposed to thrive. What I heard did not seem to fit in with my knowledge of the usual workings of the "Good Sower" in the natural world around me. I remembered the *Lanceolatum* dwindling away on the barren wall, and I asked what sort of lives followed upon these noisy conversions? The answer was as I expected—a dwindling away afterwards. Yet not in all characters was *this* reaction to be observed. Upon some Mr. Aitken's strange power for influence fell with the highest results for good—stirring up the slothful, deepen-

ing the seriousness of the already serious, and giving to the naturally timid a moral courage, unlike the courage of this world—it was the influence that a mind really in earnest (whether for good or evil) must ever have upon the minds of those around him.

As the memory of those days comes back to me, a bright light seems to fall on the fragile Maiden-hair Fern; so graceful in form, so tender and delicate in growth. Hiding itself away from the glare of the sun, and the haunts of men; in its own home—the home of Heaven's choice—how green and lovely it is! adorning the rough crevices of the time-worn rock; and in its sheltered nook, even in the depth of winter, ringing out to Nature's God its little pæan of praise, as a stray wind blows on the tiny pinnules. Transplanted, the delicate fronds shiver in every breeze, and perish when the cold wind of heaven touches them.

Adiantum capillus-Veneris is another of my representative Ferns.

Fragile and delicate as the Fern was the young

friend who first introduced me to its haunts on the rocky banks between Lelant and St. Ives, in a wondrous walk, where every beauty of earth and sea and sky seem blended together in harmony. As we walked and talked, rabbits came out of their burrows, peered at us, and then scudded away amidst the gorse. I had never seen *A. capillus-Veneris* in perfect growth in England, and none but one to whom its fastnesses were well known would have found it on this day. I was cautiously descending a very slippery bank on the verge of a sharp descent to the sea, whose waters were murmuring below, when I heard a joyous cry—"Look up!" and there I saw the Maiden-hair, not one plant, but many, peeping out of moss dripping with trickling water, and nestling into the crevices of the rock. Some of the plants were tender wee things; but I think these answered best in cultivation, for out of this morning's raid I have had about twenty beautiful Ferns, besides those that my friend took away. I can recall the very scene—the dark eyes of my friend, out of

which gleamed the pure light of a chastened soul, brightening with delight at the discovered treasure—the eager step—the radiant, and then the paling cheek. I see it all as I look at my Ferns, and remember that that ardent spirit is at rest for evermore; safe in that blessed Home towards which he had from his earliest years been walking, side by side, as it seemed to those who knew his quiet, holy life, with Him Whose love constrained him to a life of self-denial, and self-devotedness to the spiritual welfare of all around him. His highest ambition was to be, when old enough, a missionary priest, to spend all his talents and his life in his Saviour's service. Ere that longed-for day of toil dawned, rest was given, and the earnest choice of the heart, and the fixed will of the mind, were, we may humbly trust, taken instead of the working of a body too frail to fulfil its longings, by that "Only Master, Who in service takes the will for the deed."

In our up-hill scramble to regain the path to St. Ives, we met a man who looked at us with very

displeased eyes. "Where had we found the Fern?" Then he invited us to his cottage, and showed us, oh! so very many imprisoned Maiden-hairs, languishing-in captivity, which he had sought to sell to stray tourists; so that shortly every plant must be gone.

St. Ives is one of the most picturesque towns in England. The grey houses jut out on a tongue of land into the sea, which chafes around and upon them, quite ready, in appearance at least, to swallow them up, as it swallowed the land of Lyonesse long ago. I found no other rare Fern at Lelant or St. Ives, but there are many curious wild plants, and the churches are well worth a visit, particularly that of Lelant.

I planted the specimens of *A. capillus-Veneris* in pots half full of drainage, with peat earth, and a little silver sand. They thrive well in cultivation, but they must be housed during winter in the north of England. In Devonshire I have succeeded in making them live in the rockery all the year. A short distance from Nice, in France,

there is a grotto, called the Grotto of St. André, the whole roof of which is a mass of *Capillus-Veneris*. I drove there one Christmas-eve. The portals of the cave were bright with flowers and myrtles, and the inside was like fairyland, from the waving of the beautiful tresses as they hung from the dripping roof high above our heads. I took a hint from the cave, and keep my Maiden-hair thoroughly drained, and constantly watered, over the fronds, and I have seldom seen finer plants than the Warwickshire ones.

I have not mentioned any particular haunts of *Lastrea recurva*, for it grows plentifully everywhere; the well-drained banks of old ditches seem to suit it best. One of the very prettiest *Adiantums* for a rockery is a foreign one, *Pedatum*. It is exceedingly hardy, increasing rapidly, and the tuft of bright pinnæ attached to the shining black stalk spreads out in shape like an inverted umbrella, making the entire mass like a diminutive palm grove.

Another good hardy Fern is the *Cyrtomium*

falcatum. This Fern has the dark shining look of the holly, and preserves its brightness when the other inhabitants of the Fernery are lying dead around. It is a native of South America. In a small hamper of Ferns lately sent to me from Otago, in New Zealand, I discern the early promise of *C. falcatum*, but as I have not had the opportunity of studying the native Ferns of Otago, I cannot be very positive about it, and I shall not venture it out of doors till I learn its inclination more fully. The fructification of the *Cyrtomium* is exceedingly curious. The shape of the frond resembles a leaf of the *Berberis aquifolium*, and the back of each pinnule is dotted over with round spore-cases in the neatest manner imaginable.

There is a great deal of pleasure in tending the foreigners of a Fernery, particularly when they benignly adapt themselves to our miserable climate. Torn from the glories of a tropical forest, where their kindred tower their giant forms towards heaven, do they never pine for home? Does the *Cyrtomium* never long to exchange the twittering

of the sparrow and sober robin for the gay chatter of the parrot, or the wisdom of the statesman-like macaw? Does it miss the light spring of the agouti, the merry race of the raccoon? Does it hold out its arms in vain for the embrace of the trailing parasite, decked in a thousand gorgeous hues? Does it sigh for the glow of the noontide sun, penetrating here and there the thick shade of the forest, and lighting up the bright insect world that lies in drowsy ease around? For my pleasure it is content to forego all its grand, happy past, and live in the quiet Fernery, alone and forgotten by all but the grateful hand that supplies its wants, remembering it is a stranger in a strange, uncongenial land.

Another foreigner that is very easily cultivated, and very lovely, is the *Polystichum proliferum*, the fronds of which are so finely cut that it has the appearance of lacework. It increases rapidly, a number of small plants collecting round the old root, which when planted out soon grow.

There are many other foreign Ferns that look

exceedingly handsome in a Fernery, but I have only cultivated those I have named. I am hoping to find several of the Otago Ferns hardy enough to brave a Devonshire winter; but I shall not venture them out till I have proved them more surely.

I have never found in my wanderings either the *Woodsia ilvensis* or *hyperborea*. I have heard of them in Scotland, and again at the Lakes, but I am obliged to confess that I have met with neither of the plants, either in a wild or cultivated state, so that I have been unable to buy one from any collection I have seen. I believe they are too rare and uncertain in growth to be trusted out of doors even during the summer.

Another Fern I have never found is the *Asplenium fontanum*. I have had several plants of this which I have tried to harden sufficiently to trust in the Fernery; but they are, at best, unhappy-looking, and the slugs devour the little juicy fronds which are about two inches long, and in appearance like the young fronds of *Asplenium lanceolatum*. In a cool greenhouse, *Fontanum*

grows well, throwing up a compact cluster of rather pale green fronds. I plant it in a pot half full of drainage, and leave a few bits of broken flower-pot amongst the soil in which I plant it. I venture one plant out in the summer, as I like to see at a glance all my specimens gathered together. A well-stocked Fernery, and Moore's *Hand-book*, will teach a beginner in a couple of lessons more than a month's study of all the learned books on Ferns published. The biography of a good man is a pleasant thing to read, but to see that man face to face, and to know him personally is far better. After this acquaintance by sight, the study of little peculiarities, aided by magnifying glasses and by the experience of others, is made doubly interesting.

CHAPTER X.

I ask no dirge—
The foaming surge
Of the torrent will sing a lament for me ;
And the evening breeze
That stirs the trees
Will murmur a mournful lullaby.

Plant not—plant not—
Above the spot
Memorial stone for the stranger's gaze ;
The earth and sky
Are enough, for I
Have lived with Nature all my days !—*MOIR.*

My next Fern-tour, after Cornwall, was to the Lakes.

I seemed to have left in the south the monuments and recollections of the past, to bask for a time in the roseate hues shed back upon the world from the great intellects that had so lately

gone down amidst the Westmoreland hills. At the Carlisle station, Wordsworth's little grandchild met me with a basket of grapes. I took them with me into the land so sacred to his memory; and not to his memory alone, for the whole district seemed haunted by spirit shapes, flinging at me choice bits of sparkling wit or caustic humour, with here and there strange touches of tender melody. Sometimes I seemed to hail Professor Wilson, sometimes Coleridge; while Southey and Wordsworth gave me more friendly greeting, lingering with me by every lake and tarn, speaking to me out of the rushing waterfall, setting their own sweet rhymes to Nature's harmonies.

Our first halt was at Windermere, from which we made many excursions amongst the hills. We found *Hymenophyllum Wilsoni* at Dungeon Gill Force, to which we drove by Loughrigg Fell, seeing a curious sort of haymaking going on by the way, where men took the place of pitchforks, and cast the hay "abroad" with their hands.

In some parts of the Pyrenees I have observed the same custom, and when the hay was made it was gathered together in a large sheet, tied up, and carried away on the heads of women to the rick. It is rather a scramble to reach the Hymenophyllum at Dungeon Gill, but mine host at the little inn is expert in giving help, and, moreover, he is a botanist, and found us many rare wild flowers that would have escaped a less experienced eye. The inn is far removed from any other habitation, and the master told me that he found botany the greatest resource during the many anxious days he passed, before the Lake season really set in, waiting for visitors who would not come. How great the poor man's anxieties were his keen, watchful eye, his pale, anxious face, too fully denoted. He had been in service; this inn was to be let; he married a good girl whom he had long loved, and began life hopefully. The first year all went well, but by-and-by another inn was built in a more convenient situation. Visitors dropped off to the rival house, and the poor young

couple were in deep fear for the result. When I remember Dungeon Gill in its drear loneliness amongst the hills, I fancy I see the wistful eye looking up the long road for the help that visitors alone could bring. I longed to make every one I met drive over to the inn that stands waiting for the "Good time coming," within hearing of the tumbling waters where *Hymenophyllum Wilsoni* can be found for the seeking, to reward them for their pains.

We drove back to Windermere by Grasmere, Rydal, and Ambleside. As we drew near the church at Grasmere the driver looked over his shoulder at us, and said, "Would we wish to alight at the church? 'Parties' mostly liked to say as they'd seen Wordsworth's grave." So we alighted, and stood beside the plain stone slab, on which were engraved but the two words "William Wordsworth:" yet what magical words they were! They seemed to open a long vista down which troops of "parties" were slowly pacing to and fro the poet's grave—"parties" from every quarter of the globe,

princes and peasants, statesmen and poets, old men and little children—all drawn to the one solemn spot—where Nature's poet lay so calmly sleeping amidst the scenes he loved so well. What was it in the quiet poet that moved all hearts? Was it the "touch of Nature" that "makes the whole world kin"—the Nature natural, yet very human too?

Ambleside was busy as we drove through. Children with happy faces were running about with every sort of quaint device, made in rushes and flowers, which they were to put up in the church at evening service, in honour of the ancient custom of rush-bearing—a custom for which no reason is now given. May it not be the remains of the custom, which prevails abroad, of strewing the churches with sweet-scented leaves and flowers when there is an "Exposition of the Blessed Sacrament?"

I went to Grasmere church on the following morning, but I thought the quaint devices wanted the children's faces to set them off. It is a lovely drive from Windermere to Ulleswater by Trout-

beck and Kirkstone Pass. On this drive I first saw the *Allosorus crispus* in perfection. Hitherto I had only possessed little roots I had bought for 1s. 6d. each, which I had cherished as great rarities; but on this day I saw it in immense quantities, and I was told it was used by the poor people to heat their ovens. What a surprise it was! I first discovered a few plants in a wall: I begged the driver to stop while I dug them out. He laughed and said, "Wait awhile, ma'am, you'll find better than that." A little further on there were some small tufts by the side of the wall. I stopped the driver again, and again he laughed and said, "Wait." So I waited till we arrived at the inn at the top of the pass, and there it was growing everywhere; but there is such a thing as being embarrassed with riches, and it was difficult to decide which to take. I did what I advise other Fern-lovers to do: I packed up a large hamper full, and sent it off by rail, home. The hostess of the inn showed me also some *Asplenium viride*, not in tiny plants as I had always seen it,

but in large, beautiful masses. I bought a large clump for sixpence. I asked if I could find it for myself. "O dear, no! quite impossible." It only grew in the most inaccessible places where no one less brave and active than her spouse dare venture. I do not think I quite believed this; but the horses were rested, so we drove on to Patterdale—beautiful Patterdale!—surrounded on all sides by hills, reflecting themselves in the clear waters lying at their feet.

I cannot write of Patterdale without a greeting to our good friend "Jack," guide, herbalist, fernist, umbrella and watch mender, glazier, &c. I made acquaintance with Jack at once, and asked of the Ferns. Could he take me to find the *Asplenium viride*? "Impossible;" it only grew in the most dangerous places; but he had a store of plants, found long ago, that he could show me. I was taken to the spot, and saw about fifty plants, very faded and blue-looking as if just transplanted. I asked Jack if this were not the case. "Well, yes;" he had brought them from his own to the inn

garden. Jack offered me a part of his spoil. No, I must find some for myself. Would I 'take him with me? Certainly, and give him an extra shilling if I found plenty. So the next day we set off for the ascent of Helvellyn by Grisdale Tarn. Half-way we ascended the rocky path, down which little streams were trickling here and there : presently there was a cry of "Found!" and I saw my first plant of *Viride* growing wild ; it was peeping from under a dripping boulder of rock, like a green lizard. I could only find it in the places where the trickling stream kept perpetual moisture, and yet where the sloping hill and pebble bed made perpetual drainage. I learned the peculiar habit of *Viride* on this particular morning, and I never allow any stagnant moisture to be near it ; if I do, the fronds rot and drop off. The views from Helvellyn are magnificent : they steal on the waiting eye, as you ascend higher and higher, in new and varied forms of loveliness. Lake after lake, like silver purified, nestles amidst these ever-changing, ever-lasting hills, over which a million lights gleam

and haste away. Ulleswater, Windermere, Esthwaitewater, Coniston, Bassenthwaite, and Thirlmere were visible ; the Ayrshire hills, Solway Firth, the sea, and range after range of mountains, the nearer ones seeming as soft emerald-coloured velvet, those far away dark blue and sober grey. But the ascent of Helvellyn is not all pleasure ; it abounds in treacherous bogs, in two of which one of our horses floundered.

The day after the ascent of Helvellyn I had a private hunt for Viride in an opposite direction, and I was most successful, finding quantities in the wake of the trickling watercourses down the hill, but not one root did I find in any other situation. I did not once find it mixed with *Trichomanes*, which proved to me that these two Ferns require totally different situations in cultivation.

On the mountain side, where I found the *Asplenium viride*, I discovered the very beautiful *Cystopteris* I have mentioned in one of the earlier chapters. I have named it "Elfina." I have shown it to a great authority on Ferns, who calls

it "*near Alpina*;" but I believe the acuteness of its teeth removes it entirely from *Alpina*, and the division of the fronds from any other named species.

The recollection of Ulleswater and Patterdale is very pleasant to me; the silver mines and the *Asplenium viride* give it an individuality of its own.

Derwentwater is also lovely, and there are many magnificent excursions to be made from it. I saw the waterfall of Lowdore at its best; the snowy waters were playing all sorts of freaks in the gleaming sunlight, sparkling with fun as they caught its rays, and darting back foam and spray from the sober rocks which stand steady and firm amidst the "muttering and sputtering" uproar. I spent one day hunting for Ferns in Borrowdale, and found *Asplenium septentrionale* on the Castle Rock, but only in very small roots. From the way in which it was growing I have no doubt that it may be found in some quantities in the neighbourhood. *Asplenium germanicum* is also to be found in Borrowdale; but the guides are such di-

ligent seekers, they scour all the accessible places, leaving very little for timid climbers. In the neighbourhood of Castle Rock, *Hymenophyllum Wilsoni* grows in abundance. It may be found in long trailing masses hanging to the damp rock.

If I visit the lakes again I hope to find both *Asplenium septentrionale* and *germanicum* about Honister Crag, where I believe they have several times been seen. Who can tell the glories of the mountain paths in the district round Honister, where waterfall answers waterfall, and bleak dreary moors melt into sweet homeland scenes; where children play about the cottage doors, and join their voices with waterfall and mountain in one grand *Te Deum*, for ever ascending from a grateful earth to the throne of Nature's God in heaven? I know not why it is that mountain districts should have so soothing a power upon the mind; but there is something in their vastness and their stillness that seems to hush all rebel thoughts, and bow the heart of the created in simple, unquestioning awe at the feet of the Creator.

CHAPTER XI.

Nature never did betray
The heart that loved her ; 'tis her privilege,
Through all the years of this our life, to lead
From joy to joy ; for she can so inform
The mind that is within us, so impress
With quietness and beauty, and so feed
With lofty thoughts, that neither evil tongues,
Rash judgments, nor the sneers of selfish men,
Nor greetings where no kindness is, nor all
The dreary intercourse of daily life,
Shall e'er prevail against us, or disturb
Our cheerful faith, that all which we behold
Is full of blessings.—WORDSWORTH.

IN my last chapter I brought my Fern collection to an end ; but I feel as if I had yet a last word to say—a small, very small sum to cast up of the amount of work, or rather play, that I have done in the Fern papers, in which I have so pleasantly wandered back through familiar scenes and amongst familiar friends.

I have mentioned all the species of English Ferns, with the exception of the *Trichomanes radicans*, which, being an Irish Fern, hardly forms an exception. I have never found *Radicans*, have never grown it, and have never but once seen a really thriving plant of it. I have now in cultivation all the species of English Ferns, excepting the two *Woodsias*,* the *Asplenium germanicum*, and the *Hymenophyllums*. They consist of—

Adiantum capillus-Veneris, with the Dunraven variety, if variety it is.

Allosorus crispus.

Aspleniums trichomanes, *viride*, *fontanum*, *rutamuraria*, *lanceolatum* ; *Adiantum nigrum*, with varieties ; *septentrionale*, *marinum*, with Cornish variety.

Athyrium Filix-fœmina, with varieties.

Blechnum spicant, with varieties.

Botrychium lunaria.

* I may also now add the *Woodsia ilvensis* to my list of Ferns under cultivation, a plant of this rare and delicate Fern having been kindly presented to me by Mr. Mitchell, of the Glen Nursery, Bacup, Lancashire.

Ceterach officinarum.

Cystopteris fragilis, with varieties.

Cystopteris montana.

Cystopteris elvina.

Lastreas Filix-mas, with varieties; *cristata*, *thelypteris*, *oreopteris*, *rigida*, *dilatata* (with varieties), *recurva*.

Ophioglossum vulgatum.

Osmunda regalis.

Polystichums aculeatum, with varieties, *angulare* (with variety), *lonchitis*.

Polypodiums vulgare, with varieties, *dryopteris*, *phegopteris*, *calcareum*, *cambricum*.

Scolopendrium, with varieties.

So the sum I have to add up of what I have written about seems very small, although it has taken ten years to collect together the parts of which it is composed. But what amount of figures could tell of all the happiness that has been connected with these Ferns, whose stories I have been telling?—happiness to myself and others—the pleasant days, the merry hours—

hours of pain forgotten and of sorrow soothed—hours in which, when alone, the soul, winging itself from the material things around, has flown up on bright thoughts to the blessed world whence it came. Who could number these thoughts, or count the blessings that have arisen from them ?

A friend of mine, once walking in Yorkshire, during a severe drought, met a labouring man, and in passing said, “What a blessing a shower would be, my friend.” “Ah,” said the man in reply, “it would let loose a many prisoners.”—The imprisoned seed, parched and thirsty, waiting bound in the fetters of its husk—the million buds on every tree, all waiting for the genial shower to loose their prison-bonds and set them free. What beautiful thoughts the good God must have given to this poor labouring man ere he could have framed his simple touching speech !

Bulwer says that the face of Nature is the only face that as we grow old never changes to us. Friends grow old, change, and pass away ; but the old oak of our youth is the old tree still. The

hill has still the same shadows, the valley the same musical river. Their voices speak the same truths in the same tones; the vexed murmurs of the world touch them not; they praise God day and night, though man in his ungrateful egotism will not listen, will not echo their simple song.

Every created thing has something good and pleasant to say to us if only we will listen aright—some beauty to be revealed if we will seek for it—some wondrous exhibition of skill, greater and more perfect than can be shown by the greatest living man; and, as we search and look, the voice, the beauty, and the display of skill will all lead us up to that high communion which the Most High encourages His children to hold with Him. A few more words upon the Ferns, and I have done.

Of all that I have named, the Aspleniums are the most difficult to manage as a race. They one and all hate stagnant moisture. They require light, and sun, and shade—shade for the roots, and sun for the fronds. Lastreas are less difficult; they do not need sun as a necessity—they

will grow in damp and shade. *Cystopteris* is a very easy Fern to cultivate ; it will suit itself to almost any locality. *Osmunda* requires damp and shade. *Polystichums*, and *Polypodiums* and *Allosorus* need sun. All Ferns must have good drainage. I always mix good garden earth with the soil of old banks, the débris of trees, &c. I water nearly every day during the summer.

Do not be afraid of Ferns. They like being moved and divided, and will forgive almost anything but neglect.

Never plant a Fern upon a rock or stone ; there must always be depth of soil with drainage beneath. If a Fern does not do well in one situation try it in another, but never see a plant looking unhappy without trying to find out the cause, and seeking to remedy it.

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